FINAL

SANTA CLARA VALLEY NON POINT SOURCE
POLLUTION CONTROL PROGRAM

METALS CONTROL MEASURES PLAN (VOLUME I) AND EVALUATION OF NINE METALS OF CONCERN (VOLUME II)

August 30, 1996

Participating Agencies
Campbell, Cupertino, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Mountain View, Palo Alto, San Jose, Santa Clara County, Saratoga, Sunnyvale, and the Santa Clara Valley Water District

Volume II

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Volume II

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May 30, 1996

Ms. Loretta K. Barsamian
Executive Officer
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Dear Ms. Barsamian:

Subject: Santa Clara Valley NPDES Permit; Provision C.6. Metals Control Measures: Notice of Intent to Submit a Report

This letter provides notice, as required by the permit, that the Santa Clara Valley Nonpoint Source Pollution Control Program intends to submit a report by September 1, 1996, that provides evidence that may justify the removal of a metal(s) from the Metals Control Measure Plan. Only the metals that have no controllable sources associated with storm water discharges or do not result in adverse impacts to beneficial uses would be requested to be removed from the Metals Control Measures Plan.

At this time it is difficult to identify specifically which metals will fit the criteria for removal from the Metals Control Plan. The September 1 report, Metals Control Project-Evaluation of Controllable Sources and Adverse Impacts of Metals (Metals Source and Impact Report) will be an evaluation of the metals Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Silver and Zinc to determine whether they have controllable sources associated with stormwater discharges or do not result in adverse impacts to beneficial uses and justify their removal from the Metals Control Plan.

Please find enclosed a report (Metals Control Project-Evaluation and Ranking of Metals) which presents the data and method of analysis which ranks the above mentioned metals based on the exceedances of evaluation criteria for water quality, sediment quality, and bioassay data from 13 sources. This ranking of the metals will serve as the base for the remaining work to be done for our Metals Source and Impact Report. We are sending this report to you to show our progress toward the development of the Metals Source and Impact Report and to give you an opportunity for input.

Please call me at (408) 265-2607, extension 2702, if you have any questions or need additional information.

Sincerely,

Jason Christie
Program Manager

Enclosures

cc (w/enc.): Mr. Keyvan Moghbel

cc (w/o enc.): Management Committee

To: David Drury,
Santa Clara Valley Nonpoint Source
Pollution Control Program

From: Terry Cooke

Office: Oakland

Date: August 30, 1996

Subject: Metals Control Project - Evaluation and Ranking of Metals (Job A1878)

The following is a presentation of the results of the metals evaluation and ranking in South San Francisco Bay and stream environments. The goal of this task is to evaluate data from the three receiving water regimes (Bay, transition zone and freshwater) to determine the relative environmental significance of the nine metals in the receiving waters regardless of source. It is possible much of the current conditions in the receiving waters may be due to other discharges not related to current urban nonpoint sources. These issues will be addressed in the next task (the Source Identification Task) when probable sources of the priority metals will be identified. These sources will be evaluated to determine which are controllable and to propose appropriate control measures. Not all metals identified as priority metals may be controllable or have current sources.

The evaluation and ranking is a two part process. The first step involves compilation of recent high quality data for the receiving waters, sediment and tissue (see data sources presented below), and comparison with the evaluation criteria (available regulatory standards and guidelines) to determine which metals exceed the criteria more frequently. The second step involves evaluation of the resultant ranking by the Scientific Peer Review Panel and the use of experience and professional judgment to modify the ranking. We feel this second step is necessary in order to account for limitations in the numerical evaluation criteria. This step also allows other factors not easily adapted to the numerical process to be included.

The results of the first step were transmitted to the Scientific Peer Review Panel on May 20, 1996. The Panel used their professional judgment to modify some of the rankings in order to account for evidence not explicitly included in the numerical evaluation. A Draft meeting record is included in Appendix A which reflects the consensus of the panel. Due to the tight time schedules required for this submittal, the Draft Meeting Record has not been completely reviewed by the Panel as of this submittal. Any comments received from the Panel on the meeting record which result in significant changes to the ranking will be submitted as soon as they are received.

The data evaluation process used in the first step is described below.

List of Data Sources

Table 1 presents the list of data sources used in the evaluation. The data sources have been separated into Bay data and Stream/Upland data depending on the sampling locations. A preliminary list of data sources was sent to the stakeholders and peer reviewers for comment, so that all data that was deemed relevant by interested parties could be included in the evaluation. The final data set compiled for the evaluation consisted primarily of Regional Monitoring Program (RMP) data, recent bay monitoring data from each of the South Bay dischargers, recent data collected by USGS, and stormwater and sediment monitoring data collected by the Santa Clara Valley Nonpoint Source Pollution Control Program. Complete data tables are presented in Appendix B. Maps displaying the sampling station locations are shown in Figures 1 and 2.

Not all of the sources listed in our preliminary list of data sources were used, as some were not available within the time-frame of this evaluation or did not contain useful or relevant data. Table 1 also lists data sources that were proposed but were not used. These data sources are discussed below.

Bay Data. The SBDA 5-year study data were not used for several reasons. This study monitored only total metals data. Dissolved metals data, which, as described in the following section (Selection Criteria), were given greater weight in the current evaluation were not available from the 5-year study. More recent data from the RMP and the cities of Palo Alto, San Jose and Sunnyvale have analyzed both total and dissolved metals for each sampling event. Additionally, several new programs have been implemented over the last several years, such as pretreatment programs implemented by the dischargers and improved stormwater management practices implemented by the Program, that may have had an effect on baseline conditions in the South Bay. For example, USGS studies near Palo Alto have shown dramatic decreases in silver concentrations in sediments and resident clams coincident with implementation of a silver pretreatment program. These types of changes would not be reflected in older data collected in the South Bay.

Several of the studies on the proposed list of data sources contain information that may be useful during the source identification phase of the Metals Control Program, but did not have useful or relevant data to prioritize the metals. These studies included references from the 304(l) listing of the South Bay, Lawrence Berkeley Laboratory selenium data, Selenium Verification Studies, silver flux in bay sediments (Flegal *et al.*), and a selenium mass balance study conducted by USGS (Johns *et al.*)

Finally certain reports were not available for review. These included sediment core data collected by USGS and water effect ratio studies conducted by the City of San Jose.

Stream and Upland Data. Sediment data from the environmental mercury assessment for Quicksilver County Park, conducted by Dames and Moore, was not used in the numerical comparison. Data from this study were reported as wet weight. All other data used in the Metals Evaluation were dry weight data. Use of the Dames and Moore data would necessitate an estimated conversion from wet to dry weight. More importantly, the data for the mercury study were collected to address a known localized mercury contamination problem and would not have been useful in helping to prioritize metals on a watershed or baywide basis. Data from the Santa Clara Valley Channel Realignment Investigations were also reported on a wet weight basis and were not used in the metals evaluation.

A masters thesis by C.S. Scott (Scott 1991) presented background data for soils from urban environments. We did not feel that this was useful for the metals evaluation but the information may be useful during the source identification phase of the program.

A study of the biological effects of urban runoff in Coyote Creek was an older study that contained data for a limited number of total metals but no dissolved metals data.

Evaluation of Optional Selection Criteria Approaches

Several possible options were considered in choosing selection criteria. The range of possible selection criteria that were considered included evaluation of such factors as beneficial use impairments, toxicity testing, human health impacts, aquatic life impacts, and comparison to regulatory chemical criteria. Each of these approaches has advantages and disadvantages and all of the possible approaches are limited by the type, amount, and quality of available data.

For example, one approach that was considered included evaluating aquatic life impacts and/or toxicity testing results. Evaluation of aquatic and marine communities provides a direct measure of impacts, while toxicity testing can provide quantitative information about the potential for biological effects. In determining impacts to biological communities it is difficult to distinguish pollutant effects from the many naturally occurring physical and biological conditions that may affect the community. Toxicity testing may not be appropriate for pollutants that cause effects over long periods of time and there are questions as to the ecological significance of the test results.

The goal for this task was to evaluate and prioritize *individual* metals of concern. Neither of the above types of data can distinguish the individual causes of an effect (e.g., is chromium or lead the cause of an identified impact?). Toxicity Identification Evaluations (TIEs) can more closely determine the pollutants contributing to an acute toxic effect; however, these tests have rarely been conducted in the South Bay environment because acute toxicity has rarely been found. TIEs have only recently been developed for chronic toxicity.

After considering the various advantages and limitations of the possible approaches, we have chosen to use regulatory chemical criteria as the primary selection criteria in the evaluation. This will allow evaluation and ranking of each of the individual metals of regulatory concern in the South Bay and stream environments relative to standards set to protect aquatic and marine life and for some cases, human health. A goal in choosing the selection criteria is to develop a set of criteria that would be relatively simple to interpret and understand. Where possible, we attempted to select just one set of criteria or standards to compare to for a given matrix, such as sediments. The use of one criteria per matrix avoids problems with interpretation of comparisons to multiple standards which may have been developed in different ways and with potentially different or conflicting meanings. Data compiled for the South Bay environment are compared to the criteria discussed below. The metals are initially ranked based on the frequency with which the data exceed the criteria.

Selection Criteria

Water. EPA's interim dissolved water quality criteria and the San Francisco Bay Basin Plan water quality objectives based on total metals were used for comparison of water sample data (EPA 1995). The EPA's current water quality criteria recognizes that the dissolved form of metals are more biologically available to organisms and are thus a more appropriate measure of potential toxic effects. However, the Basin Plan objectives (based on total metals) are regulatory standards for the Bay Area. The data are compared to both standards; however, exceedances of the EPA objectives are weighted more heavily than exceedances of the Basin Plan objectives.

The South Bay data are compared to the saltwater criteria, while data for freshwater streams are compared to freshwater criteria, many of which are based upon water hardness. Data collected from the "transition" areas, those areas that transition between the freshwater and saltwater, are compared with the lowest of the freshwater or saltwater criteria for a given metal. For the transition zone, the most restrictive criteria for each of the metals was the saltwater criteria.

To account for potential seasonal differences, particularly in the streams where metals concentrations may be very different during storms than during dry periods, the data are divided into wet and dry season data sets, with the wet season generally defined as November through April. Wet season data for the stream (consisting largely of storm runoff data) are compared with criteria for acute effects while dry season data are compared with criteria for chronic effects. It is more appropriate to compare the stormwater flows in streams with the acute criteria as these flows generally last a short period of time as opposed to the longer exposures occurring during dry weather flows. The South Bay and transition area data are divided into wet and dry season data sets; however, all data are compared to the chronic criteria regardless of season. Chronic criteria are used for the Bay and transition zones wet season data because the sampling in these regimes was not targeted toward episodic events.

Evaluation of the data by season may aid in the source identification studies, although the season that any given exceedance occurred does not weigh in the ranking process as both seasons are given equal weight.

Sediments. California currently has no regulatory standards for sediments. However, the San Francisco Bay Regional Water Quality Control Board (RWQCB) has developed interim sediment screening criteria for wetland creation and upland reuse. The values developed by the RWQCB are based upon a study by Long *et al.* (1995) which compiled biological effects data and corresponding sediment chemistry data from numerous studies. In the Long *et al.* study, the sediment concentration above which adverse biological effects might be expected at least 10 percent of the time is defined as the Effects Range-Low (ERL). The sediment concentration above which adverse biological effects may be expected to occur at least 50 percent of the time was defined as the Effects Range-Median (ERM). The RWQCB combined the results of the Long *et al.* study with studies of pollutant concentrations in natural wetlands and based their screening criteria on the value of the ERL or the value of the upper range of natural wetlands concentrations, whichever value was greater. In cases where the upper range of concentrations in natural wetlands exceeded the 20th percentile value from the Long *et al.* study, the 20th percentile value was selected as the screening value.

Sediment data from all three regimes (the South Bay, transition zones and tributary streams) are compared with the RWQCB Screening Criteria for wetland creation cover (RWQCB 1992). These values take into account the higher naturally occurring concentrations of chromium and nickel in soils surrounding the San Francisco Bay and within San Francisco Bay sediments.

The sediment data are also divided into wet and dry season data sets during the evaluation to aid in later source identification, although the season is not given special weight in the evaluation.

Tissues. Tissue burdens are difficult to evaluate in determining an ecological effect. There are standards available to evaluate fish and bivalve tissues burdens for some metals in terms of human health risk due to consumption. For example, EPA has screening level criteria for cadmium, mercury, and selenium in fish tissue. Fish tissue data were compared to these values based upon a fish consumption rate of 30 grams per day as was done by the RWQCB in its study of contaminant levels in fish tissues from the San Francisco Bay (RWQCB *et al.* 1995). The EPA originally used a fish consumption rate of 6 grams per day, however, many environmental organizations (CBE, Save the Bay) expressed concern that this consumption value is too low for the San Francisco Bay region.

Tissue standards are not available for all of the metals of regulatory concern. For metals not covered by the criteria described above, fish, mussel, and clam tissue burdens were compared to various other standards, as there is no single set of standards for tissue in the San Francisco Bay. All of the standards used in this evaluation were based on the protection of human health, with the exception of the selenium standard which was based on the protection of wildfowl. In general, when several different standards were found for a given metal, the most restrictive standard was used in the evaluation. Because of the wide array of standards, and the data evaluated consisted of several different species, tissue data were weighted lower than sediment and water data during the ranking process. The tissue data set was not evaluated by season.

Table 2 summarizes the selection criteria scheme used in this evaluation while Table 3 presents the actual values used for comparison.

Analysis of Exceedances

Data were compiled in electronic spreadsheet format and were sorted by metal, category (Bay, transition zone, freshwater), matrix (water, sediment, tissue), sampling location, and season (wet, dry). Evaluation criteria were used directly (saltwater criteria) or calculated based upon water hardness (freshwater criteria). Exceedance factors (the factor of the measured concentrations to the criteria) were calculated and the total number of exceedances were summed. For each metal in each category, a percentage of exceedances were calculated. The data and results of the calculations are presented in Appendix B.

Application of the Selection Criteria

For each media and season (if applicable) the percentage of samples exceeding the selection criteria for the nine metals are used to determine the relative rank of the metals. A weighting scheme is used to determine a weighted average percentage of samples exceeding the selection criteria. This is necessary because multiple media and seasons are evaluated and the confidence in the selection criteria varied for the different media. Water and sediment data are given the same weight while tissue data are given half the weight of water or sediment.

Weighting of Total and Dissolved Water Criteria. Water data are compared to two evaluation criteria. The percent exceedance for the two criteria for each season/regime (e.g. wet/Bay) are combined to determine an overall water percent exceedance for each season/regime. Exceedances of EPA dissolved criteria are given four times (0.80) the weight of exceedances of the Basin Plan total objectives. This is done to reflect the higher bioavailablity of dissolved metals and the greater confidence in the more recent EPA criteria. For copper in saltwater, exceedances of EPA dissolved criteria and the Basin Plan total copper site-specific objectives are weighted equally. This is done because the site-specific objective is thought to be as equally reliable, in terms of indicating potential impacts, as the EPA dissolved standard.

The percent exceedances are totaled for each metal within a region/season and normalized so that each media/season combination is weighted equally. For example, in Table 4 (Bay Data Summary) the percent exceedances for the wet season water data (total and dissolved) represent 20% of the total overall score for each metal. This yields a regional weighted average percent exceedance for each metal. A summary of the rankings for each of the regimes investigated (the South Bay, the transition zone, and the freshwater streams) are presented in Tables 4, 5, and 6. An example calculation for nickel based on data reported in Table 4 is shown below:

$$\text{Nickel} = [[(31\% \times 0.2) + (7\% \times 0.8)] + [(36\% \times 0.2) + (2\% \times 0.8)] + 2\% + 0\% + 0\%] \div 5 \text{ (regime/season)} = 4.5\%$$

Tables 7 and 8 present the same data grouped by media (water and sediment) rather than by regime. Tissue are not summarized individually because the only tissue data which was included are from the Bay regime (shown on Table 4). This data presentation is provided as additional information but is not used in the ranking process because different metals may affect different media and/or pathways due to differences in chemical and toxicological properties. For example, mercury and selenium are known to bioaccumulate in higher organisms. The chronic mercury water quality criteria was developed based on food chain models and is designed to prevent fish from accumulating hazardous amounts of mercury. However, the chronic selenium water quality objective does not take into account bioaccumlation. Therefore, for selenium, exceedances of water criteria alone are not necessarily a reliable indicator of potential environmental threat.

Summary of Results by Metal

The overall percent exceedances for each metal are calculated by averaging the exceedances within in each regime. The metals are broken into four groups based on overall percent exceedance and summarized in Table 9. Mercury and silver are in the first group (> 30% exceedance). Copper and zinc are in the second group (10-30% exceedance). Lead, nickel, and selenium are in the third group (5-10% exceedance). Cadmium and chromium are in the fourth group (< 5% exceedance). Results for each metal are discussed below in order of overall rank.

Mercury. Bay mercury concentrations frequently exceeded water, sediment, and tissue evaluation criteria. Similar exceedances of water and sediment were found in the transition zone. In the freshwater regime, mercury in sediment exceeded screening values, particularly in samples collected from Guadalupe Creek watershed, while stormwater in streams did not exceed the acute objective or dissolved criteria. Dry weather mercury water concentrations in streams could not be compared to the chronic standards because detection limits were higher than the chronic standards. Mercury concentrations in fish tissue from the Guadalupe watershed are known be elevated above the tissue standards, although these are not included in the data tables.

Silver. Silver concentrations in sediment from all three regimes frequently exceeded the screening values. No exceedances were found for water samples. There were no tissue screening values for silver found in the literature.

Copper. Copper concentrations frequently exceeded both the Basin Plan site-specific objective and the EPA dissolved criteria in the Bay and transition zones. Few exceedances of sediment screening values were found in these regimes. Storm flows in freshwater regimes rarely exceeded the dissolved criteria and frequently exceeded the total metal objective. Sediment screening values were occasionally exceeded in the freshwater regime. Tissue concentrations of copper were below the screening values.

Zinc. Zinc concentrations rarely exceeded water screening values in the Bay and transition zone regimes. Storm flows in freshwater regimes rarely exceeded the dissolved criteria and frequently exceeded the total metal objective. Sediment screening values were occasionally exceeded in the Bay and frequently exceeded in the transition zone and freshwater regimes. Tissue concentrations occasionally exceeded the screening values.

Lead. Lead concentrations rarely exceeded the water, sediment, and tissue screening values in the Bay and transition zone regimes. Freshwater sediment exceeded the screening values in half the wet weather samples, although the samples were collected several years prior to and during the phase-out of leaded gasoline. Stormwater samples occasionally exceeded the total acute water standards and never exceeded the dissolved criteria. Dry season water samples did not exceed the total objective.

Nickel. Nickel concentrations frequently exceeded total water objectives in the Bay and transition zone regimes. Dissolved nickel in the Bay rarely exceeded water quality criteria. Dissolved nickel in the transition zone often exceeded the criteria. Neither total nor dissolved nickel in water exceeded the evaluation criteria in the freshwater regime. Nickel in sediment from all three regimes was generally below the sediment screening values. Nickel in tissue did not exceed the evaluation criteria.

Selenium. Selenium concentrations in water from all three regimes was below both the total and dissolved objectives. Sediment concentrations of selenium were generally below the screening values in the Bay and transition regimes and occasionally exceeded screening values in the freshwater regime. Selenium in Bay tissue occasionally exceeded the U.S. Fish and Wildlife guidelines for protection of waterfowl.

Chromium. Chromium concentrations in water from all three regimes almost never exceeded total or dissolved evaluation criteria. Chromium concentrations in sediment rarely exceeded sediment screening values, with most of the exceedances in the freshwater regime occurring in the upper tributaries of the Guadalupe watershed, an area known to contain serpentine minerals which have enriched chromium concentrations. Bay tissue concentrations were generally below the screening values, with both exceedances found in fish tissue rather than clams or mussels.

Cadmium. Cadmium concentrations in water samples from the Bay and transition regimes never exceeded either the total objective nor dissolved criteria. Water samples from the freshwater regime never exceeded the dissolved criteria and only rarely exceeded the total objective. Cadmium concentrations in sediment and tissue never exceeded the screening values.

Summary Results of Scientific Peer Review Panel

The panel members were asked to comment on the relative ranking of the metals resulting from the numerical comparison with the evaluation criteria for water, sediment, and tissue. The purpose of the review and comments are to adjust the ranking based on scientific information not easily incorporated into the numerical evaluation process. The following is a summary of the changes to the relative ranking recommended by the Scientific Peer Review

Panel during the May 29, 1996 teleconference held to discuss the May 20, 1996 Draft Data Evaluation and Ranking of Metals. The complete draft meeting record is contained in Appendix A.

The metals should be distributed into three classes[1] rather than ranked numerically from one to nine based on our present understanding of the fate and effects and the available data:

A. Problem Metals
B. Metals of Concern
C. Metals Likely Not of Concern

Problem Metals are those which the weight of evidence suggest an impact is occurring or has a potential to occur if sources are not controlled.

Metals of Concern are those which the weight of evidence suggests there is possibly an impact but that there is less confidence in the monitoring data, evaluation criteria, or severity of the impact.

Metals Likely Not of Concern are those which the weight of evidence suggest there is not an environmental impact occurring in the receiving waters.

The Panel recommended the following changes to the relative ranking based on metal specific information:

Selenium. Because selenium is known to have a more severe impact to higher trophic levels due to its tendency to bioaccumulate and biomagnify, exceedances of the tissue screening criteria should be weighted heavily. Results from comparison of Bay tissues with US Fish and Wildlife screening concentrations indicate selenium should be placed in the problem pollutant category.

Copper. Exceedances of water evaluation criteria in the Bay should be weighted heavily because they represent a potentially widespread problem. Also, recent increases in copper concentrations in resident mussels compared to drought-year concentrations are of concern. It was noted that the extent to which dissolved organically-complexed copper (one of the major forms of copper in the South Bay) is bioavailable is unclear. For these reasons, copper should be placed in the problem pollutant category.

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[1] This nomenclature to designate the three classes of metals was developed by the Scientific Peer Review Panel and is used in this Volume. The co-permittees developed the nomenclature used in Volume I.

Nickel. Exceedances of water evaluation criteria in the Bay should be weighted heavily because they represent a potentially widespread problem. Also, the tendency for nickel to be accumulated into the food chain through phytoplankton bioaccumulation is well documented. The availability of nickel derived from recently disturbed serpentine geologic formations (potentially related to new development) is not well understood. For these reasons, nickel should be placed in the problem pollutant category.

Cadmium. Saltwater aquatic life criteria for cadmium were judged to be not reliable (too high), based on review of literature (Eisler 1985) which indicated sublethal effects occur between 0.5 ug/L and 10 ug/L in marine species (the saltwater objective is 9.3 ug/L). Because of the known potential for low levels of cadmium to cause toxicity and the difficulty in measuring low levels of cadmium, it was recommended that cadmium be placed in the metals of concern category.

Table 10 presents the final ranking of the relative environmental significance for metals in South San Francisco Bay.

TABLE 10
FINAL RELATIVE ENVIRONMENTAL SIGNIFICANCE FOR METALS IN SOUTH SAN FRANCISCO BAY

Category	Metals
Problem Metals	Copper, Nickel, Mercury, Silver, Selenium
Metals of Concern	Cadmium, Lead, Zinc
Metals Likely not of Concern	Chromium

TABLE 1
LIST OF DATA SOURCES

Reference Number	APPROXIMATE DATES	PROGRAM/STUDY
Data Sources Used in Evaluation		
Bay Data		
B1	1980-present	State Mussel Watch Program (SWRCB 1988, data downloaded from SWRCB Internet site)
B3	1990-present	USGS Sediment and Resident Bivalve Tissue (USGS 1991, 1992, 1993, 1995)
B4	1989-1992	3-year Receiving Water Studies Conducted by Cities of San Jose, Sunnyvale, and Palo Alto (EOA 1991, WCC 1992)
B6	1992	Regional Monitoring Pilot Study
B7	1993-present	Regional Monitoring Program (SFEI 1993, 1994)
B8	1994	RWQCB Study of Contaminant Levels In Fish From San Francisco Bay (RWCQB et al. 1995)
B14		RMP water and sediment data collected in Coyote Creek (SFEI 1994)
Stream & Upland Data		
S3	1982-present	USGS Stream Sediment Data (USGS 1988)
S4	1986-1987	Department of Health Services Toxic Substances Control Division (Fish Tissue Concentrations of Trace Substances) (DHS 1987, DTSC 1992)
S5	1988-present	Santa Clara Valley Nonpoint Source Pollution Control Program Runoff and Sediment Monitoring Data (WCC 1991, 1992b, 1993)
S6	1988-present	Bay Area Stormwater Management Agencies Association (BASMAA) Runoff Database
S7	1989	Dames and Moore Environmental Mercury Assessment, Almaden Quicksilver County Park (Dames and Moore 1989)
S10	1994	SCVNPS Calabazas Creek Sediment Monitoring Pilot Project (WCC 1995)
Proposed Data Sources Not Used in Evaluation		
Bay Data		
B2	1981-1986	SBDA 5-year Study
B5	1986-1990	Selenium Verification Studies
B9	1995-1996	Water Effects Ratio Studies Conducted By City of San Jose
B11		References from 304(l) Listing
B12		Lawrence Berkeley Laboratory Selenium Data
B13		USGS sediment core data
B15		Silver Flux study in bay sediments
B16		USGS selenium mass balance
Stream & Upland Data		
S1	1970-1971	Department of Fish and Game Santa Clara County Mercury Survey
S2	1980	WCC/EPA Water Quality and Biological Effects of Urban Runoff on Coyote Creek
S8	1991	Scott, C.S., Background Metal Concentrations in Soils In Northern Santa Clara County California (M.S. Thesis)
S9	1992-present	Santa Clara Valley Water District Channel Realignment Investigations

TABLE 2
SELECTION CRITERIA SCHEME

Media	**Receiving Water/Season**					
Water Body	**South Bay**		**Streams/Waterways**		**Transition Zones**	
Season	**Wet**	**Dry**	**Wet**	**Dry**	**Wet**	**Dry**
Water (dissolved)	EPA-WQC chronic Saltwater	EPA-WQC chronic Saltwater	EPA-WQC acute Freshwater	EPA-WQC chronic Freshwater	EPA-WQC chronic Most Restrictive	EPA-WQC chronic Most Restrictive
Water (total)	Basin Plan chronic Saltwater	Basin Plan chronic Saltwater	Basin Plan acute Freshwater	Basin Plan chronic Freshwater	Basin Plan chronic Most Restrictive	Basin Plan chronic Most Restrictive
Sediment	Interim Sediment Screening Criteria and Testing Requirements for Wetland Creation and Upland Beneficial Reuse. Interim Final; RWQCB, December, 1992. (evaluate for both wet and dry seasons)					
Biota	RWQCB Fish Tissue Screening Values (30g/day consumption), Median International Standards, and other values found in the literature					

TABLE 3
EVALUATION CRITERIA

Media	Cadmium		Chromium		Copper		Lead		Mercury	
	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved
WATER										
Bay (saltwater - chronic)	9.3	9.3	50	50	4.9	2.4	5.6	8.1	0.025	0.025
Streams - wet season (freshwater - acute*)	3.9	3.7	1737	550	17.7	17	81.6	65	2.4	2.1
dry season (freshwater - chronic*)	1.1	1	207	180	11.8	11	3.2	2.5	0.012	-
Transition zones (saltwater - chronic)	9.3	9.3	50	50	4.9	2.4	5.6	8.1	0.025	-
SEDIMENT										
(wetlands creation cover)	<5	-	<220	-	<90	-	<50	-	<0.35	-
TISSUE	2.33[a]	-	1[b]	-	20[b]	-	0.8[c]	-	0.14[a]	-

Media	Nickel		Selenium		Silver		Zinc	
	total	dissolved	total	dissolved	total	dissolved	total	dissolved
WATER								
Bay (saltwater - chronic)	8.3	8.2	5	71	5	NA	86	81
Streams - wet season (freshwater - acute*)	1350	1400	20	20	4.1	3.4	117	110
dry season (freshwater - chronic*)	157.8	160	5	5	-	1.9	106	100
Transition zones (saltwater - chronic)	8.3	8.2	5	71	5	NA	86	81
SEDIMENT								
(wetlands creation cover)	<140	-	<0.7	-	<1.0	-	<160	-
TISSUE	80[c]	-	3[d]	-	NA	-	40[e]	-

* - Estimate based on a water hardness of 100 mg/L - evaluation was conducted by comparing water concentration to criteria calculated on actual water hardness at the time of sample collection

a - (EPA screening value *in* RWQCB *et al.* 1995)
b - (Median International Standard *in* SWRCB 1988)
c - (FDA, human health, Pers.Com. S. Loscutoif))
d - (Lemly and Smith 1987)
e - (Nauen 1983)

TABLE 4
SUMMARY OF PERCENT EXCEEDANCES FOR BAY DATA

Media	Season	Cadmium		Chromium		Copper		Lead		Mercury		Nickel		Selenium		Silver		Zinc	
		total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved
WATER	wet[a]	0/59 0%	0/59 0%	0/59 0%	0/59 0%	31/59 53%	51/59 86%	0/59 0%	0/59 0%	22/59 37%	NA NA	18/59 31%	4/59 7%	0/59 0%	0/59 0%	0/59 0%	NA NA	0/59 0%	0/59 0%
	dry[b]	0/58 0%	0/58 0%	0/58 0%	0/58 0%	40/58 69%	54/58 93%	1/59 2%	0/58 0%	28/58 48%	NA NA	21/58 36%	1/58 2%	0/58 0%	0/58 0%	0/58 0%	NA NA	0/58 0%	0/58 0%
SEDIMENT	wet[a]	0/76 0%		0/76 0%		0/76 0%		2/76 3%		24/59 41%		1/63 2%		1/59 2%		33/76 43%		24/76 32%	
	dry[b]	0/80 0%		0/81 0%		1/81 1%		0/81 0%		41/56 73%		0/67 0%		1/56 2%		31/81 38%		5/81 6%	
TISSUE		0/73 0%		2/73 3%		0/77 0%		1/75 1%		5/38 13%		0/73 0%		6/38 16%		NA NA		16/76 21%	
WEIGHTED BAY EXCEEDANCE[c,d]		0.0%		0.6%		30.3%		0.9%		42.4%		4.5%		4.0%		20.3%		11.8%	
BAY RANK		9		8		2		7		1		5		6		3		4	

[a] wet = November - April

[b] dry = May - October

[c] Weighting factor for water data was 20% for total metals and 80% for dissolved metals with the exception of copper which was weighted at 50% for both total and dissolved components.

[d] Sample Calculations:
Copper = (53*.5+86*.5+69*.5+93*.5+0+1+0)/5 = 30.3
Nickel = (31*.2+7*.8+36*.2+2*.8+2+0+0)/5 = 4.5
NA = Not applicable

TABLE 5
SUMMARY OF PERCENT EXCEEDANCES FOR TRANSITION ZONE DATA

Media	Season	Cadmium		Chromium		Copper		Lead		Mercury		Nickel		Selenium		Silver		Zinc	
		total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved
WATER	wet[a]	0/79 0%	0/79 0%	1/79 1%	0/79 0%	56/79 71%	58/79 73%	5/79 6%	0/79 0%	43/79 54%	NA NA	61/79 77%	14/79 18%	0/79 0%	0/79 0%	0/79 0%	NA NA	1/79 1%	0/79 0%
	dry[b]	0/77 0%	0/77 0%	0/77 0%	0/77 0%	59/77 77%	62/77 81%	6/77 8%	0/77 0%	46/77 60%	NA NA	58/77 75%	18/77 23%	0/77 0%	0/77 0%	0/77 0%	NA NA	1/77 1%	0/77 0%
SEDIMENT	wet[a]	0/73 0%		2/73 3%		4/73 5%		5/73 7%		34/73 47%		2/73 3%		3/73 4%		72/73 99%		48/73 66%	
	dry[b]	0/71 0%		1/71 1%		2/71 3%		6/71 8%		50/71 70%		0/71 0%		2/71 3%		68/71 96%		36/71 51%	
TISSUE		-		-		-		-		-		-		-		-		-	
WEIGHTED TRANSITION EXCEEDANCE[cd]		0.0%		1.1%		39.7%		4.5%		57.7%		16.5%		1.7%		48.6%		29.2%	
TRANSITION RANK		9		8		3		6		1		5		7		2		4	

[a] wet = November - April

[b] dry = May - October

[c] Weighting factor for water data was 20% for total metals and 80% for dissolved metals with the exception of copper which was weighted at 50% for both total and dissolved components.

[d] Sample Calculations:
Copper = (71*.5+73*.5+77*.5+81*.5+5+3)/4 = 39.7
Nickel = (77*.2+18*.8+75*.2+23*.8+3+0)/4 = 16.5
NA = Not applicable

TABLE 6
SUMMARY OF PERCENT EXCEEDANCES FOR FRESHWATER DATA

Media	Season	Cadmium		Chromium		Copper		Lead		Mercury		Nickel		Selenium		Silver		Zinc	
		total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved
WATER	wet[a]	4/89 4%	0/69 0%	0/80 0%	0/8 0%	63/89 71%	2/68 3%	13/89 15%	0/69 0%	3/89 3%	0/22 0%	0/89 0%	0/6 0%	0/93 0%	- -	0/175 0%		56/91 62%	1/69 1%
	dry[b]	0/8 0%	- -	0/8 0%	- -	0/12 0%	- -	0/12 0%	- -	NC NC	- -	0/8 0%	- -	0/12 0%	- -	NS NS	- -	0/12 0%	- -
SEDIMENT	wet[a]	0/25 0%		0/34 0%		3/37 8%		19/36 53%		49/95 52%		1/4 25%		4/8 50%		4/8 50%		3/38 8%	
	dry[b]	0/33 0%		7/37 19%		4/41 10%		12/41 29%		63/122 52%		1/11 9%		4/12 33%		4/8 50%		5/41 12%	
TISSUE		-		-		-		-		-		-		-		-		-	
WEIGHTED FRESHWATER EXCEEDANCE[cd]		0.2%		4.7%		8.6%		21.3%		34.3%		8.5%		20.8%		33.0%		8.3%	
FRESHWATER RANK		9		8		5		3		1		6		4		2		7	

[a] wet = November - April

[b] dry = May - October

[c] Weighting factor for water data was 20% for total metals and 80% for dissolved metals with the exception of copper which was weighted at 50% for both total and dissolved components.

[d] Sample Calculations:
Copper = (71*.5+3*.5+0+8+10)/4 = 8.6
Nickel = (0*.2+0*.8+0+25+9)/4 = 8.5
NC = Not Comparable
NS = Not sampled

TABLE 7
SUMMARY OF PERCENT EXCEEDANCES FOR WATER DATA

Media	Season	Cadmium		Chromium		Copper		Lead		Mercury		Nickel		Selenium		Silver		Zinc
		total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total	dissolved	total
BAY	wet[a]	0/59 0%	0/59 0%	0/59 0%	0/59 0%	31/59 53%	51/59 86%	0/59 0%	0/59 0%	22/59 37%	NA NA	18/59 31%	4/59 7%	0/59 0%	0/59 0%	0/59 0%	NA NA	0/59 0%
	dry[b]	0/58 0%	0/58 0%	0/58 0%	0/58 0%	40/58 69%	54/58 93%	1/59 2%	0/58 0%	28/58 48%	NA NA	21/58 36%	1/58 2%	0/58 0%	0/58 0%	0/58 0%	NA NA	0/58 0%
TRANSITION	wet[a]	0/79 0%	0/79 0%	1/79 1%	0/79 0%	56/79 71%	58/79 73%	5/79 6%	0/79 0%	43/79 54%	NA NA	61/79 77%	14/79 18%	0/79 0%	0/79 0%	0/79 0%	NA NA	1/79 1%
	dry[b]	0/77 0%	0/77 0%	0/77 0%	0/77 0%	59/77 77%	62/77 81%	6/77 8%	0/77 0%	46/77 60%	NA NA	58/77 75%	18/77 23%	0/77 0%	0/77 0%	0/77 0%	NA NA	1/77 1%
FRESHWATER	wet[a]	4/89 4%	0/69 0%	0/80 0%	0/8 0%	63/89 71%	2/68 3%	13/89 15%	0/69 0%	3/89 3%	0/22 0%	0/89 0%	0/6 0%	0/93 0%	- -	0/175 0%	- -	56/91 62%
	dry[b]	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -			- -
AVERAGE WATER EXCEEDANCE[d]		0.2%		0.1%		67.6%		1.2%		40.0%		16.7%		0.0%		0.0%		2.8%
WATER RANK		6		7		1		5		2		3		8		8		4

[a] wet = November - April

[b] dry = May - October

NA = Not applicable

TABLE 8
SUMMARY OF PERCENT EXCEEDANCES FOR SEDIMENT DATA

	Season	Cadmium total	Chromium total	Copper total	Lead total	Mercury total	Nickel total	Selenium total	Silver total	Zinc total
BAY	wet[a]	0/76 0%	0/76 0%	0/76 0%	2/76 3%	24/59 41%	1/65 2%	1/59 2%	33/76 43%	24/76 32%
	dry[b]	0/80 0%	0/81 0%	1/81 1%	0/81 0%	41/56 73%	0/67 0%	1/56 2%	31/81 38%	5/81 6%
TRANSITION	wet[a]	0/73 0%	2/73 3%	4/73 5%	5/73 7%	34/73 47%	2/73 3%	3/73 4%	72/73 99%	48/73 66%
	dry[b]	0/71 0%	1/71 1%	2/71 3%	6/71 8%	50/71 70%	0/71 0%	2/71 3%	68/71 96%	36/71 51%
FRESHWATER	wet[a]	0/25 0%	0/34 0%	3/37 8%	19/36 53%	49/95 52%	1/4 25%	4/8 50%	4/8 50%	3/38 8%
	dry[b]	0/33 0%	7/37 19%	4/41 10%	12/41 29%	63/122 52%	1/11 9%	4/12 33%	4/8 50%	5/41 12%
AVERAGE SEDIMENT EXCEEDANCE		0.0%	3.8%	4.5%	16.7%	55.8%	6.5%	15.7%	62.7%	29.2%
SEDIMENT RANK		9	8	7	4	2	6	5	1	3

[a] wet = November - April

[b] dry = May - October

TABLE 9
SUMMARY OF AVERAGE EXCEEDANCES

	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc
BAY EXCEEDANCE	0.0%	0.6%	30.3%	0.9%	42.4%	4.5%	4.0%	20.3%	11.8%
TRANSITION EXCEEDANCE	0.0%	1.1%	39.7%	4.5%	57.7%	16.5%	1.7%	48.6%	29.2%
FRESHWATER EXCEEDANCE	0.2%	4.7%	8.6%	21.3%	34.3%	8.5%	20.8%	33.0%	8.3%
AVERAGE	0.1%	2.1%	26.2%	8.9%	44.8%	9.8%	8.8%	34.0%	16.4%
OVERALL RANK	9	8	3	6	1	5	7	2	4
More than 30%					x			x	
10% - 30%			x						x
5% - 10%				x		x	x		
Less than 5%	x	x							

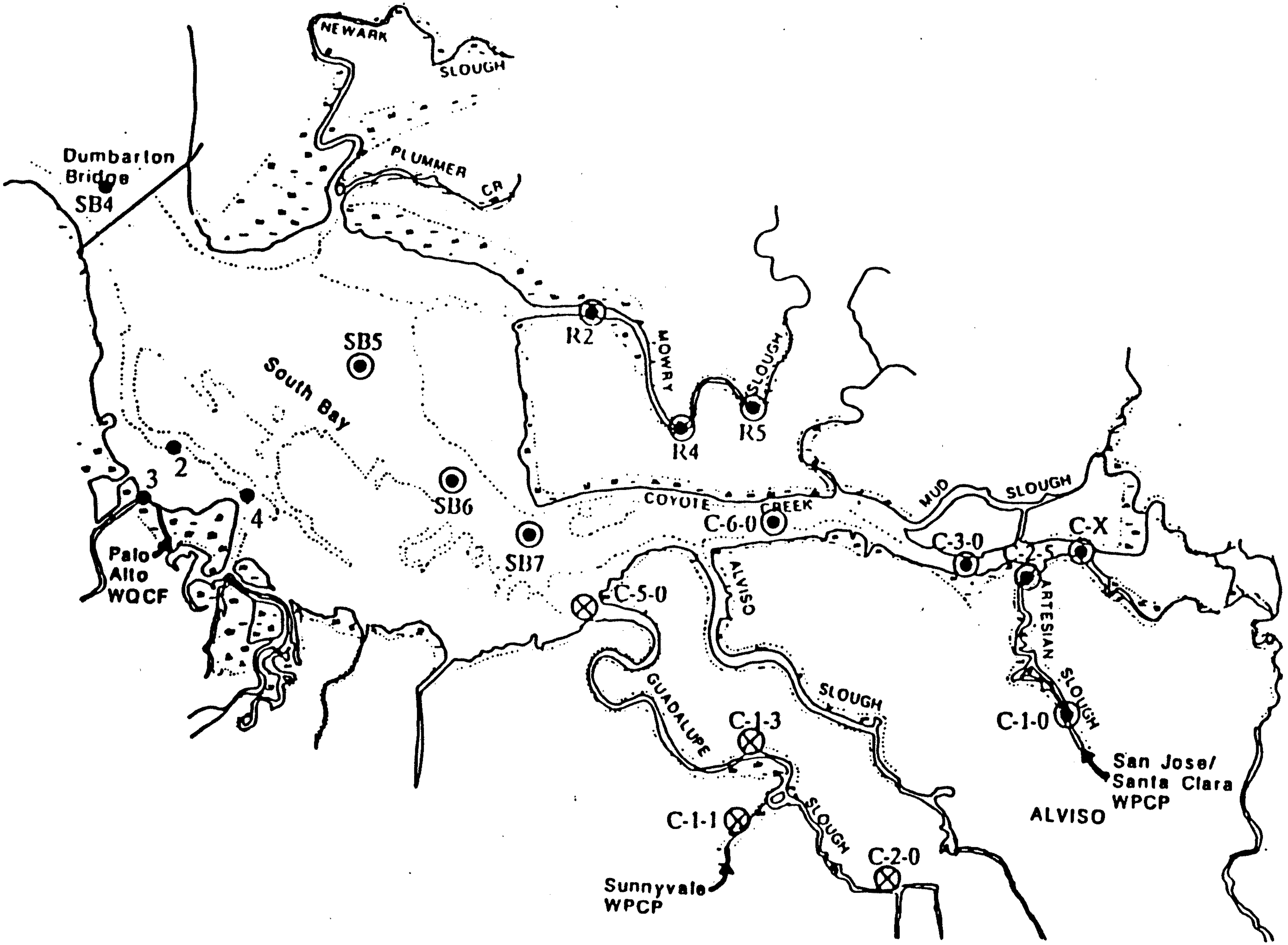
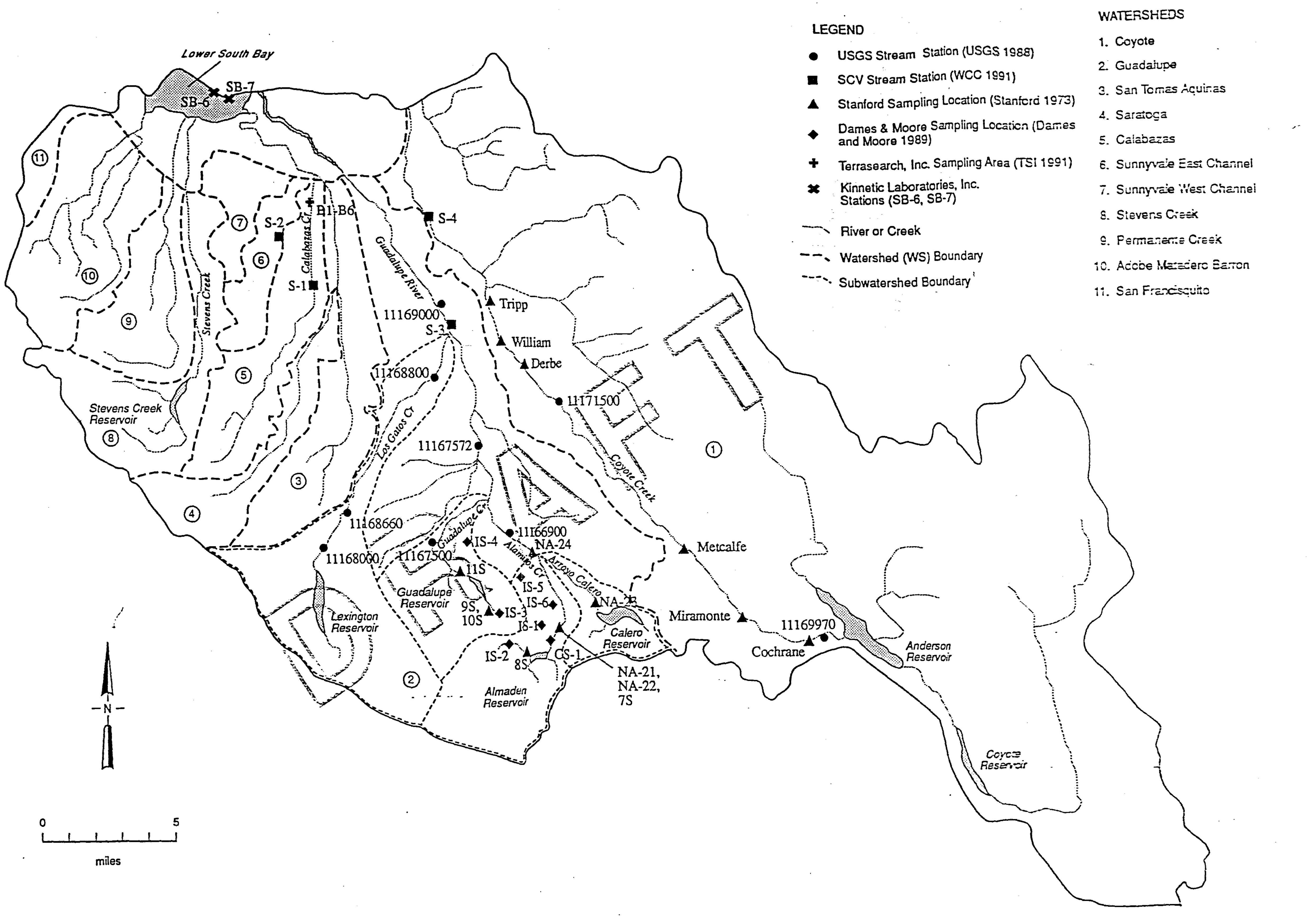


Figure 1. South Bay and Transition Zone Sampling Locations

Source: EOA, 1991



Project No. 951268NA	Santa Clara Valley Metals Control Measures Plan	STREAM AND BAY SEDIMENT SAMPLING LOCATIONS USED IN WATERSHED ANALYSIS	Figure 2
Woodward-Clyde Consultants			

951277NA-WC-400/082096/graphics/mcl

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APPENDIX A

DRAFT MEETING RECORD WOODWARD-CLYDE CONSULTANTS

PROJECT: **Santa Clara Valley NPS Metals Control Measures Plan (District Job A1878)**
MEETING: **Teleconference Peer Review of Draft Data Evaluation and Ranking of Metals**
DATE: May 29, 1996
LOCATION: Teleconference
PARTICIPANTS: Peer Review Panel:
Russell Flegal, UCSC;
Rainer Hoenicke, SFEI;
Sam Luoma, USGS;
Angus McGrath, LBL;
Robert Spies, AMS;

Consultants:
Terry Cooke, WCC;
Adam Oliveri, EOA, Inc.;
Dan Cloak, EOA, Inc.

The following is a summary of the comments received from peer reviewers during the May 29, 1996 teleconference held to discuss the Draft Data Evaluation and Ranking of Metals.

Ranking of Metals

The panel members were asked to comment on the relative ranking of the metals resulting from the numerical comparison with the evaluation criteria for water, sediment, and tissue. The purpose of the review and comments are to adjust the ranking based on scientific information not easily incorporated into the numerical evaluation process.

The following general comments were made:

1) The metals should be distributed into three classes rather than ranked numerically from one to nine based on our present understanding of the fate and effects and the available data:

A. Problem Metals
B. Metals of Concern
C. Metals Likely Not of Concern

Problem metals are those which the weight of evidence suggest an impact is occurring or has a potential to occur if sources are not controlled.

Metals of concern are those which the weight of evidence suggests there is possibly an impact but that there is less confidence in the monitoring data, evaluation criteria, or severity of the impact.

Metals likely not of concern are those which the weight of evidence suggest there is not an environmental impact occurring in the receiving waters.

2) An understanding of the biogeochemical processes affecting the fate and effects of each metal in the Bay, Transition Zone, and Freshwater Regimes is necessary to properly predict the environmental significance of each metal. To the extent that these processes are known, these considerations should be incorporated into the Technical Memorandum.

3) Constituents other than metals should be addressed (e.g., petroleum hydrocarbons) as these could be causing a more severe impact.

Suggested Changes to the Relative Ranking by Metal

Selenium. Because selenium is known to have a more severe impact at higher trophic levels due to its tendency to bioaccumulate and biomagnify, exceedances of the tissue screening criteria should be weighted heavily. Results from comparison of bay tissues with US Fish and Wildlife screening concentrations indicate selenium should be placed in the problem pollutant category.

Copper. Exceedances of water evaluation criteria in the Bay should be weighted heavily because they represent a potentially widespread problem. Also, recent increases in copper concentrations in resident mussels compared to drought year concentrations are of concern. It was noted that the extent to which dissolved organically-complexed copper (one of the major forms of copper in the South Bay) is bioavailable is unclear. For these reasons, copper should be placed in the problem pollutant category.

Nickel. Exceedances of water evaluation criteria in the Bay should be weighted heavily because they represent a potentially widespread problem. Also, the tendency for nickel to be accumulated into the food chain through phytoplankton bioaccumulation is well documented. The availability of nickel derived from recently disturbed serpentine geologic formations (potentially related to new development) is not well understood. For these reasons, nickel should be placed in the problem pollutant category.

Cadmium. Saltwater aquatic life criteria for cadmium were judged to be not reliable (too high) based on review of literature (Eisler 1985) which indicated sublethal effects occur between 0.5 ug/L and 10 ug/L in marine species (the saltwater objective is 9.3 ug/L). Because of the known potential for low levels of cadmium to cause toxicity and the difficulty in measurement of low levels of cadmium, it was recommended that cadmium be placed in the metals of concern category.

Comments on Metals Which Did Not Change Relative Ranking

Silver. Although discharges of silver have decreased over the recent past, sediment and tissue concentrations in the Bay are still elevated. For these reasons silver is a problem pollutant.

Mercury. Concentrations in fish, water, and sediment indicate mercury is a problem in the Bay and certain watersheds.

Lead. Detrimental effects of lead on non-humans generally occur when birds or other detritivours are exposed directly to lead by eating lead shot. Exposure of lead to higher organisms via uptake through the foodchain is generally thought not to be a primary route of concern due to the tendency of organisms to biopurify. Lead concentrations were found to be generally not variable, at low concentrations and with few hotspots, except in marshes where hunting has occurred. Lead should be placed in the metals of concern category due to potential for exposure to lead shot.

Zinc. Zinc generally shows a lack of adverse environmental effects in the Bay. The resident mussel concentrations in the bay are below background levels in Europe. However, little is known about the sediment bioavailablity of zinc in freshwater and it is found in runoff. For these reasons, zinc should be placed in the metals of concern category at about the same level of concern as lead.

Chromium. In saltwater, chromium is present as the chromite species Cr (III) which is an essential micronutrient. Existing water, sediment and tissue data indicate chromium is not a problem in the Bay. In freshwater, chromium should be present as chromate Cr (VI) a highly toxic species. Previous measurements of Cr (VI) in runoff indicated < 10% of the total chromium was found as Cr (VI). However, existing data on freshwater chromium speciation are sparse and somewhat dated. For these reasons chromium was placed in the metals not likely of concern category, with the recommendation that Cr (VI) be measured in streams to confirm the previous finding.

The resulting ranking is:

Category	**Metals**
Problem Metals	Copper, Nickel, Mercury, Silver, Selenium
Metals of Concern	Cadmium, Lead, Zinc
Metals Likely Not of Concern	Chromium

ACTIONS:
Terry to summarize discussion and transmit to Peer Review Panel for verification.

APPENDIX B

BAY REGIME DATA

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR COPPER WITH SOUTH BAY WATER SAMPLES
WET SEASON DATA

Station ID	Copper Total (µg/l)	Copper Dissolved (µg/l)	Total Objective (4.9 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (2.4 ug/L)	Exceedance Factor DISSOLVED
STATION 1	4.1	2.9	4.9	0.8	2.4	1.2
STATION 1	8	1.4	4.9	1.6	2.4	0.6
STATION 1	5	3	4.9	1.0	2.4	1.3
STATION 1	5.9	2.9	4.9	1.2	2.4	1.2
STATION 1	4.3	3.5	4.9	0.9	2.4	1.5
STATION 1	4.7	4	4.9	1.0	2.4	1.7
STATION 1	9.9	2	4.9	2.0	2.4	0.8
STATION 1	3.25	2.52	4.9	0.7	2.4	1.1
STATION 1	4.09	2.32	4.9	0.8	2.4	1.0
STATION 1	5.2	3.72	4.9	1.1	2.4	1.6
STATION 2	4.1	2.9	4.9	0.8	2.4	1.2
STATION 2	6.1	1.7	4.9	1.2	2.4	0.7
STATION 2	5	4.3	4.9	1.0	2.4	1.8
STATION 2	4.6	2.8	4.9	0.9	2.4	1.2
STATION 2	4.8	4.2	4.9	1.0	2.4	1.8
STATION 2	4.8	4.5	4.9	1.0	2.4	1.9
STATION 2	4.9	2	4.9	1.0	2.4	0.8
STATION3	9.8	6.9	4.9	2.0	2.4	2.9
STATION3	4.9	2.3	4.9	1.0	2.4	1.0
STATION3	5.2	4.1	4.9	1.1	2.4	1.7
STATION3	6.5	4.6	4.9	1.3	2.4	1.9
STATION3	6.2	5.7	4.9	1.3	2.4	2.4
STATION3	6.7	5.7	4.9	1.4	2.4	2.4
STATION4	4.8	2.6	4.9	1.0	2.4	1.1
STATION4	3.8	1.3	4.9	0.8	2.4	0.5
STATION4	4.2	3.2	4.9	0.9	2.4	1.3
STATION4	4.8	3.2	4.9	1.0	2.4	1.3
STATION4	4.3	3.8	4.9	0.9	2.4	1.6
STATION4	5.4	4.6	4.9	1.1	2.4	1.9
STATION5	7.7	2.6	4.9	1.6	2.4	1.1
STATION5	5.4	3.3	4.9	1.1	2.4	1.4
STATION5	4	3.2	4.9	0.8	2.4	1.3
STATION5	5.1	3.2	4.9	1.0	2.4	1.3
STATION5	5.6	3.1	4.9	1.1	2.4	1.3
STATION5	7.6	4.1	4.9	1.6	2.4	1.7
STATION5	3.41	2.42	4.9	0.7	2.4	1.0
STATION5	3.40	2.48	4.9	0.7	2.4	1.0
STATION5	6.35	4.96	4.9	1.3	2.4	2.1
SB-6	7.6	2.4	4.9	1.6	2.4	1.0
SB-6	4.3	3.2	4.9	0.9	2.4	1.3
SB-6	4.6	3.5	4.9	0.9	2.4	1.5
SB-6	4.6	3.4	4.9	0.9	2.4	1.4
SB-6	5.8	3.5	4.9	1.2	2.4	1.5
SB-6	5.4	4.0	4.9	1.1	2.4	1.7
SB-7	6.3	3.0	4.9	1.3	2.4	1.3
SB-7	4.7	3.7	4.9	1.0	2.4	1.5
SB-7	4.8	3.5	4.9	1.0	2.4	1.5
SB-7	4.3	3.2	4.9	0.9	2.4	1.3
SB-7	5.2	3.1	4.9	1.1	2.4	1.3
SB-7	4.9	3.8	4.9	1.0	2.4	1.6
SB-7	3.53	2.67	4.9	0.7	2.4	1.1
C-6-0	10.6	3.2	4.9	2.2	2.4	1.3
C-6-0	9.0	3.2	4.9	1.8	2.4	1.3
C-6-0	13.50	4.25	4.9	2.8	2.4	1.8
C-6-0	8.70	3.60	4.9	1.8	2.4	1.5
C-6-0	4.77	3.43	4.9	1.0	2.4	1.4
C-6-0	8.5	3.3	4.9	1.7	2.4	1.4
Coyote Creek	6.06	2.85	4.9	1.2	2.4	1.2
Coyote Creek	6.68	4.89	4.9	1.4	2.4	2.0
			Total Exceedances	31		51
			Percent Exceedance	53%		86%
			Average Exceedance	1.2		1.4

BAYWWET.XLS, Copper

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR COPPER WITH SOUTH BAY WATER SAMPLES
DRY SEASON DATA

Station ID	Copper Total (µg/l)	Copper Dissolved (µg/l)	Total Objective (4.9 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (2.4 ug/L)	Exceedance Factor DISSOLVED
STATION 1	3.4	2.6	4.9	0.7	2.4	1.1
STATION 1	4.5	3.3	4.9	0.9	2.4	1.4
STATION 1	4	3	4.9	0.8	2.4	1.3
STATION 1	9.6	4.2	4.9	2.0	2.4	1.8
STATION 1	7	6.3	4.9	1.4	2.4	2.6
STATION 1	5.7	3.6	4.9	1.2	2.4	1.5
STATION 1	4.6	4.3	4.9	0.9	2.4	1.8
STATION 1	3.48	2.82	4.9	0.7	2.4	1.2
STATION 1	3.58	3.08	4.9	0.7	2.4	1.3
STATION 1	6.17	3.67	4.9	1.3	2.4	1.5
STATION 2	5	3	4.9	1.0	2.4	1.3
STATION 2	4.5	2.2	4.9	0.9	2.4	0.9
STATION 2	11	6	4.9	2.2	2.4	2.5
STATION 2	7.2	6.8	4.9	1.5	2.4	2.8
STATION 2	8.2	6.5	4.9	1.7	2.4	2.7
STATION 2	5.6	3.9	4.9	1.1	2.4	1.6
STATION 2	4.7	4.5	4.9	1.0	2.4	1.9
STATION3	11	4.2	4.9	2.2	2.4	1.8
STATION3	4.9	4	4.9	1.0	2.4	1.7
STATION3	16	16	4.9	3.3	2.4	6.7
STATION3	9.5	6.9	4.9	1.9	2.4	2.9
STATION3	9.7	7.8	4.9	2.0	2.4	3.3
STATION3	6.3	4.9	4.9	1.3	2.4	2.0
STATION4	4.5	3.8	4.9	0.9	2.4	1.6
STATION4	3.9	3.9	4.9	0.8	2.4	1.6
STATION4	6	6	4.9	1.2	2.4	2.5
STATION4	9.6	5.4	4.9	2.0	2.4	2.3
STATION4	9	7.6	4.9	1.8	2.4	3.2
STATION4	5.4	4.5	4.9	1.1	2.4	1.9
STATION5	4.2	3.4	4.9	0.9	2.4	1.4
STATION5	3.4	3.5	4.9	0.7	2.4	1.5
STATION5	5	2.2	4.9	1.0	2.4	0.9
STATION5	7.8	5.5	4.9	1.6	2.4	2.3
STATION5	9.1	6.5	4.9	1.9	2.4	2.7
STATION5	5.6	4	4.9	1.1	2.4	1.7
STATION5	3.51	2.89	4.9	0.7	2.4	1.2
STATION5	4.45	3.25	4.9	0.9	2.4	1.4
STATION5	5.67	3.85	4.9	1.2	2.4	1.6
SB-6	5.1	4.1	4.9	1.0	2.4	1.7
SB-6	3.8	3.6	4.9	0.8	2.4	1.5
SB-6	5.4	2.2	4.9	1.1	2.4	0.9
SB-6	8.9	5.8	4.9	1.8	2.4	2.4
SB-6	12.0	7.0	4.9	2.4	2.4	2.9
SB-6	5.8	4.2	4.9	1.2	2.4	1.8
SB-7	5.3	4.3	4.9	1.1	2.4	1.8
SB-7	3.6	3.6	4.9	0.7	2.4	1.5
SB-7	5.4	2.3	4.9	1.1	2.4	1.0
SB-7	6.5	6.2	4.9	1.3	2.4	2.6
SB-7	10.0	6.6	4.9	2.0	2.4	2.8
SB-7	5.2	4.0	4.9	1.1	2.4	1.7
SB-7	5.90	3.60	4.9	1.2	2.4	1.5
C-6-0	6.4	3.8	4.9	1.3	2.4	1.6
C-6-0	7.1	4.1	4.9	1.4	2.4	1.7
C-6-0	4.1	3.0	4.9	0.8	2.4	1.3
C-6-0	11.0	6.4	4.9	2.2	2.4	2.7
C-6-0	16.0	7.9	4.9	3.3	2.4	3.3
C-6-0	6.7	3.8	4.9	1.4	2.4	1.6
Coyote Creek	7.97	3.85	4.9	1.6	2.4	1.6
			Total Exceedances	**40**		**54**
			Percent Exceedance	**69%**		**93%**
			Average Exceedance	**1.4**		**1.9**

BAYWDRY.XLS, Copper

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR CHROMIUM WITH SOUTH BAY WATER SAMPLES
WET SEASON DATA

Station ID	Chromium Total (µg/l)	Chromium Dissolved (µg/l)	Total Objective (50 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (50 ug/L)	Exceedance Factor DISSOLVED
STATION 1	0.4	0.1	50.0	0.0	50.0	0.0
STATION 1	2.1	0.1	50.0	0.0	50.0	0.0
STATION 1	6	3.4	50.0	0.1	50.0	0.1
STATION 1	12.1	0.8	50.0	0.2	50.0	0.0
STATION 1	5.2	3.6	50.0	0.1	50.0	0.1
STATION 1	3.7	1	50.0	0.1	50.0	0.0
STATION 1	13	0.9	50.0	0.3	50.0	0.0
STATION 1	2.34	0.23	50.0	0.0	50.0	0.0
STATION 1	6.35	0.14	50.0	0.1	50.0	0.0
STATION 1	4.15	0.14	50.0	0.1	50.0	0.0
STATION 2	0.4	0.2	50.0	0.0	50.0	0.0
STATION 2	1.3	<0.1	50.0	0.0	50.0	0.0
STATION 2	5.8	2.5	50.0	0.1	50.0	0.1
STATION 2	5.4	3.3	50.0	0.1	50.0	0.1
STATION 2	5.3	3	50.0	0.1	50.0	0.1
STATION 2	2.3	0.8	50.0	0.0	50.0	0.0
STATION 2	7.2	0.4	50.0	0.1	50.0	0.0
STATION3	0.2	0.3	50.0	0.0	50.0	0.0
STATION3	1.7	<0.1	50.0	0.0	50.0	0.0
STATION3	3.3	2.5	50.0	0.1	50.0	0.1
STATION3	12.7	0.6	50.0	0.3	50.0	0.0
STATION3	4.3	3	50.0	0.1	50.0	0.1
STATION3	3.9	1.5	50.0	0.1	50.0	0.0
STATION4	0.8	0.1	50.0	0.0	50.0	0.0
STATION4	0.4	0.1	50.0	0.0	50.0	0.0
STATION4	6.5	2.9	50.0	0.1	50.0	0.1
STATION4	7.6	0.4	50.0	0.2	50.0	0.0
STATION4	4.8	1.5	50.0	0.1	50.0	0.0
STATION4	3.2	0.9	50.0	0.1	50.0	0.0
STATION5	2.5	0.1	50.0	0.1	50.0	0.0
STATION5	0.5	0.1	50.0	0.0	50.0	0.0
STATION5	0.2	0.2	50.0	0.0	50.0	0.0
STATION5	0.5	0.1	50.0	0.0	50.0	0.0
STATION5	0.2	0.1	50.0	0.0	50.0	0.0
STATION5	0.8	0.1	50.0	0.0	50.0	0.0
STATION5	3.04	0.45	50.0	0.1	50.0	0.0
STATION5	4.86	0.12	50.0	0.1	50.0	0.0
STATION5	5.75	0.16	50.0	0.1	50.0	0.0
SB-6	2.20	0.10	50.0	0.0	50.0	0.0
SB-6	0.40	0.10	50.0	0.0	50.0	0.0
SB-6	0.30	0.20	50.0	0.0	50.0	0.0
SB-6	0.30	0.10	50.0	0.0	50.0	0.0
SB-6	0.30	0.10	50.0	0.0	50.0	0.0
SB-6	0.51	0.10	50.0	0.0	50.0	0.0
SB-7	2.00	0.10	50.0	0.0	50.0	0.0
SB-7	0.40	0.10	50.0	0.0	50.0	0.0
SB-7	0.30	0.10	50.0	0.0	50.0	0.0
SB-7	0.20	0.10	50.0	0.0	50.0	0.0
SB-7	0.20	0.10	50.0	0.0	50.0	0.0
SB-7	0.27	0.10	50.0	0.0	50.0	0.0
SB-7	2.57	0.40	50.0	0.1	50.0	0.0
C-6-0	1.80	0.20	50.0	0.0	50.0	0.0
C-6-0	2.10	0.10	50.0	0.0	50.0	0.0
C-6-0	3.00	0.20	50.0	0.1	50.0	0.0
C-6-0	1.90	0.10	50.0	0.0	50.0	0.0
C-6-0	1.83	0.67	50.0	0.0	50.0	0.0
C-6-0	0.36	0.10	50.0	0.0	50.0	0.0
Coyote Creek	12.89	0.16	50.0	0.3	50.0	0.0
Coyote Creek	6.71	0.22	50.0	0.1	50.0	0.0

Total Exceedances	**0**	**0**
Percent Exceedance	**0%**	**0%**
Average Exceedance	**0.1**	**0.0**

Water Quality Objectives based on Chromium 6+

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR CHROMIUM WITH SOUTH BAY WATER SAMPLES
DRY SEASON DATA

Station ID	Chromium Total (µg/l)	Chromium Dissolved (µg/l)	Total Objective (50 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (50 ug/L)	Exceedance Factor DISSOLVED
STATION 1	2.2	3	50.0	0.0	50.0	0.1
STATION 1	1.1	0.6	50.0	0.0	50.0	0.0
STATION 1	1	0.3	50.0	0.0	50.0	0.0
STATION 1	2	2	50.0	0.0	50.0	0.0
STATION 1	4.4	0.2	50.0	0.1	50.0	0.0
STATION 1	2.6	0.3	50.0	0.1	50.0	0.0
STATION 1	2.5	0.4	50.0	0.1	50.0	0.0
STATION 1	2.19	0.11	50.0	0.0	50.0	0.0
STATION 1	2.28	0.08	50.0	0.0	50.0	0.0
STATION 1	9.32	0.19	50.0	0.2	50.0	0.0
STATION 2	7.2	2.7	50.0	0.1	50.0	0.1
STATION 2	0.9	0.6	50.0	0.0	50.0	0.0
STATION 2	1.8	0.4	50.0	0.0	50.0	0.0
STATION 2	<0.1	<0.1	50.0	0.0	50.0	0.0
STATION 2	1.5	<0.1	50.0	0.0	50.0	0.0
STATION 2	0.5	0.3	50.0	0.0	50.0	0.0
STATION 2	1.3	0.2	50.0	0.0	50.0	0.0
STATION3	2.7	2.3	50.0	0.1	50.0	0.0
STATION3	1.3	0.7	50.0	0.0	50.0	0.0
STATION3	1.7	0.5	50.0	0.0	50.0	0.0
STATION3	<0.1	<0.1	50.0	0.0	50.0	0.0
STATION3	1.6	<0.1	50.0	0.0	50.0	0.0
STATION3	1.6	0.4	50.0	0.0	50.0	0.0
STATION4	2.7	2.3	50.0	0.1	50.0	0.0
STATION4	0.7	0.5	50.0	0.0	50.0	0.0
STATION4	1.8	0.6	50.0	0.0	50.0	0.0
STATION4	4.3	<0.1	50.0	0.1	50.0	0.0
STATION4	2.2	<0.1	50.0	0.0	50.0	0.0
STATION4	1.4	0.7	50.0	0.0	50.0	0.0
STATION5	0.1	0.1	50.0	0.0	50.0	0.0
STATION5	0.2	0.2	50.0	0.0	50.0	0.0
STATION5	0.3	0.1	50.0	0.0	50.0	0.0
STATION5	2.6	0.1	50.0	0.1	50.0	0.0
STATION5	0.9	0.3	50.0	0.0	50.0	0.0
STATION5	1.2	0.2	50.0	0.0	50.0	0.0
STATION5	1.42	0.13	50.0	0.0	50.0	0.0
STATION5	3.66	0.08	50.0	0.1	50.0	0.0
STATION5	4.96	0.24	50.0	0.1	50.0	0.0
SB-6	0.40	0.10	50.0	0.0	50.0	0.0
SB-6	0.32	0.10	50.0	0.0	50.0	0.0
SB-6	0.40	0.20	50.0	0.0	50.0	0.0
SB-6	3.00	0.10	50.0	0.1	50.0	0.0
SB-6	1.20	0.33	50.0	0.0	50.0	0.0
SB-6	1.40	0.20	50.0	0.0	50.0	0.0
SB-7	0.30	0.10	50.0	0.0	50.0	0.0
SB-7	0.42	0.10	50.0	0.0	50.0	0.0
SB-7	0.30	0.20	50.0	0.0	50.0	0.0
SB-7	1.10	0.10	50.0	0.0	50.0	0.0
SB-7	1.30	0.30	50.0	0.0	50.0	0.0
SB-7	2.10	0.20	50.0	0.0	50.0	0.0
SB-7	3.97	0.12	50.0	0.1	50.0	0.0
C-6-0	0.90	0.10	50.0	0.0	50.0	0.0
C-6-0	1.50	0.19	50.0	0.0	50.0	0.0
C-6-0	0.20	0.10	50.0	0.0	50.0	0.0
C-6-0	3.30	0.10	50.0	0.1	50.0	0.0
C-6-0	3.60	0.20	50.0	0.1	50.0	0.0
C-6-0	2.40	0.20	50.0	0.0	50.0	0.0
Coyote Creek	14.35	0.41	50.0	0.3	50.0	0.0

Total Exceedances	0	0
Percent Exceedance	0%	0%
Average Exceedance	0.0	0.0

Water Quality Objectives based on Chromium 6+

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR CADMIUM WITH SOUTH BAY WATER SAMPLES
WET SEASON DATA

Station ID	Cadmium Total (µg/l)	Cadmium Dissolved (µg/l)	Total Objective (9.3 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (9.3 ug/L)	Exceedance Factor DISSOLVED
STATION 1	0.17	0.18	9.3	0.0	9.3	0.0
STATION 1	0.32	0.08	9.3	0.0	9.3	0.0
STATION 1	0.32	0.16	9.3	0.0	9.3	0.0
STATION 1	0.43	0.2	9.3	0.0	9.3	0.0
STATION 1	0.22	0.17	9.3	0.0	9.3	0.0
STATION 1	0.34	0.27	9.3	0.0	9.3	0.0
STATION 1	0.17	0.17	9.3	0.0	9.3	0.0
STATION 1	0.05681	0.05627	9.3	0.0	9.3	0.0
STATION 1	0.0893	0.0992	9.3	0.0	9.3	0.0
STATION 1	0.1092	0.101	9.3	0.0	9.3	0.0
STATION 2	0.18	0.16	9.3	0.0	9.3	0.0
STATION 2	0.08	0.04	9.3	0.0	9.3	0.0
STATION 2	0.32	0.26	9.3	0.0	9.3	0.0
STATION 2	0.51	0.16	9.3	0.1	9.3	0.0
STATION 2	0.18	0.16	9.3	0.0	9.3	0.0
STATION 2	0.23	0.2	9.3	0.0	9.3	0.0
STATION 2	0.18	0.15	9.3	0.0	9.3	0.0
STATION3	0.41	0.34	9.3	0.0	9.3	0.0
STATION3	0.08	0.04	9.3	0.0	9.3	0.0
STATION3	0.19	0.22	9.3	0.0	9.3	0.0
STATION3	0.52	0.2	9.3	0.1	9.3	0.0
STATION3	0.29	0.28	9.3	0.0	9.3	0.0
STATION3	0.33	0.25	9.3	0.0	9.3	0.0
STATION4	0.19	0.11	9.3	0.0	9.3	0.0
STATION4	0.08	0.04	9.3	0.0	9.3	0.0
STATION4	0.17	0.19	9.3	0.0	9.3	0.0
STATION4	0.43	0.17	9.3	0.0	9.3	0.0
STATION4	0.19	0.16	9.3	0.0	9.3	0.0
STATION4	0.24	0.17	9.3	0.0	9.3	0.0
STATION5	0.21	0.14	9.3	0.0	9.3	0.0
STATION5	0.17	0.12	9.3	0.0	9.3	0.0
STATION5	0.14	0.07	9.3	0.0	9.3	0.0
STATION5	0.15	0.12	9.3	0.0	9.3	0.0
STATION5	0.14	0.12	9.3	0.0	9.3	0.0
STATION5	0.13	0.11	9.3	0.0	9.3	0.0
STATION5	0.0574	0.0572	9.3	0.0	9.3	0.0
STATION5	0.0904	0.0981	9.3	0.0	9.3	0.0
STATION5	0.1273	0.1097	9.3	0.0	9.3	0.0
SB-6	0.24	0.14	9.3	0.0	9.3	0.0
SB-6	0.12	0.15	9.3	0.0	9.3	0.0
SB-6	0.12	0.13	9.3	0.0	9.3	0.0
SB-6	0.14	0.12	9.3	0.0	9.3	0.0
SB-6	0.16	0.13	9.3	0.0	9.3	0.0
SB-6	0.10	0.10	9.3	0.0	9.3	0.0
SB-7	0.24	0.10	9.3	0.0	9.3	0.0
SB-7	0.13	0.16	9.3	0.0	9.3	0.0
SB-7	0.14	0.16	9.3	0.0	9.3	0.0
SB-7	0.12	0.10	9.3	0.0	9.3	0.0
SB-7	0.13	0.12	9.3	0.0	9.3	0.0
SB-7	0.13	0.10	9.3	0.0	9.3	0.0
SB-7	0.11	0.13	9.3	0.0	9.3	0.0
C-6-0	0.32	0.16	9.3	0.0	9.3	0.0
C-6-0	0.26	0.15	9.3	0.0	9.3	0.0
C-6-0	0.14	0.12	9.3	0.0	9.3	0.0
C-6-0	0.31	0.13	9.3	0.0	9.3	0.0
C-6-0	0.14	0.13	9.3	0.0	9.3	0.0
C-6-0	0.12	0.12	9.3	0.0	9.3	0.0
Coyote Creek	0.0985	0.1074	9.3	0.0	9.3	0.0
Coyote Creek	0.1229	0.1076	9.3	0.0	9.3	0.0

Total Exceedances	**0**	**0**
Percent Exceedance	**0%**	**0%**
Average Exceedance	**0.0**	**0.0**

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COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR CADMIUM WITH SOUTH BAY WATER SAMPLES
DRY SEASON DATA

Station ID	Cadmium Total (µg/l)	Cadmium Dissolved (µg/l)	Total Objective (9.3 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (9.3 ug/L)	Exceedance Factor DISSOLVED
STATION 1	0.80	0.59	9.3	0.1	9.3	0.1
STATION 1	0.06	0.06	9.3	0.0	9.3	0.0
STATION 1	0.08	0.08	9.3	0.0	9.3	0.0
STATION 1	0.29	0.22	9.3	0.0	9.3	0.0
STATION 1	0.55	0.36	9.3	0.1	9.3	0.0
STATION 1	0.82	0.50	9.3	0.1	9.3	0.1
STATION 1	0.14	0.14	9.3	0.0	9.3	0.0
STATION 1	0.14	0.13	9.3	0.0	9.3	0.0
STATION 1	0.08686	0.12209	9.3	0.0	9.3	0.0
STATION 1	0.17	0.22	9.3	0.0	9.3	0.0
STATION 2	0.16	0.14	9.3	0.0	9.3	0.0
STATION 2	0.04	0.04	9.3	0.0	9.3	0.0
STATION 2	0.11	0.09	9.3	0.0	9.3	0.0
STATION 2	0.3	0.2	9.3	0.0	9.3	0.0
STATION 2	0.56	0.3	9.3	0.1	9.3	0.0
STATION 2	0.68	0.52	9.3	0.1	9.3	0.1
STATION 2	0.14	0.11	9.3	0.0	9.3	0.0
STATION3	0.42	0.45	9.3	0.0	9.3	0.0
STATION3	0.04	0.04	9.3	0.0	9.3	0.0
STATION3	0.09	0.09	9.3	0.0	9.3	0.0
STATION3	0.34	0.25	9.3	0.0	9.3	0.0
STATION3	0.69	0.32	9.3	0.1	9.3	0.0
STATION3	0.9	0.65	9.3	0.1	9.3	0.1
STATION4	0.17	0.14	9.3	0.0	9.3	0.0
STATION4	0.03	0.03	9.3	0.0	9.3	0.0
STATION4	0.08	0.09	9.3	0.0	9.3	0.0
STATION4	0.45	0.19	9.3	0.0	9.3	0.0
STATION4	0.65	0.39	9.3	0.1	9.3	0.0
STATION4	0.65	0.49	9.3	0.1	9.3	0.1
STATION5	0.28	0.25	9.3	0.0	9.3	0.0
STATION5	0.18	0.23	9.3	0.0	9.3	0.0
STATION5	0.24	0.18	9.3	0.0	9.3	0.0
STATION5	0.17	0.1	9.3	0.0	9.3	0.0
STATION5	0.22	0.15	9.3	0.0	9.3	0.0
STATION5	0.14	0.14	9.3	0.0	9.3	0.0
STATION5	0.14522	0.13132	9.3	0.0	9.3	0.0
STATION5	0.09741	0.13034	9.3	0.0	9.3	0.0
STATION5	0.175	0.2016	9.3	0.0	9.3	0.0
SB-6	0.21	0.22	9.3	0.0	9.3	0.0
SB-6	0.21	0.22	9.3	0.0	9.3	0.0
SB-6	0.24	0.20	9.3	0.0	9.3	0.0
SB-6	0.11	0.08	9.3	0.0	9.3	0.0
SB-6	0.18	0.17	9.3	0.0	9.3	0.0
SB-6	0.16	0.10	9.3	0.0	9.3	0.0
SB-7	0.24	0.22	9.3	0.0	9.3	0.0
SB-7	0.25	0.20	9.3	0.0	9.3	0.0
SB-7	0.18	0.18	9.3	0.0	9.3	0.0
SB-7	0.13	0.08	9.3	0.0	9.3	0.0
SB-7	0.14	0.15	9.3	0.0	9.3	0.0
SB-7	0.19	0.19	9.3	0.0	9.3	0.0
SB-7	0.10	0.08	9.3	0.0	9.3	0.0
C-6-0	0.19	0.26	9.3	0.0	9.3	0.0
C-6-0	0.24	0.17	9.3	0.0	9.3	0.0
C-6-0	0.10	0.18	9.3	0.0	9.3	0.0
C-6-0	0.19	0.06	9.3	0.0	9.3	0.0
C-6-0	0.32	0.19	9.3	0.0	9.3	0.0
C-6-0	0.14	0.13	9.3	0.0	9.3	0.0
Coyote Creek	0.1718	0.1017	9.3	0.0	9.3	0.0

Total Exceedances	0	0
Percent Exceedance	0%	0%
Average Exceedance	0.0	0.0

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR LEAD WITH SOUTH BAY WATER SAMPLES
WET SEASON DATA

Station ID	Lead Total (µg/l)	Lead Dissolved (µg/l)	Total Objective (5.6 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (8.1 ug/L)	Exceedance Factor DISSOLVED
STATION 1	1.40	0.10	5.6	0.3	8.1	0.0
STATION 1	3.10	0.30	5.6	0.6	8.1	0.0
STATION 1	1.50	0.10	5.6	0.3	8.1	0.0
STATION 1	1.30	0.10	5.6	0.2	8.1	0.0
STATION 1	0.50	<0.1	5.6	0.1	8.1	0.0
STATION 1	0.40	<0.1	5.6	0.1	8.1	0.0
STATION 1	5.00	0.10	5.6	0.9	8.1	0.0
STATION 1	0.48	0.07	5.6	0.1	8.1	0.0
STATION 1	1.68	0.04	5.6	0.3	8.1	0.0
STATION 1	1.31	0.05	5.6	0.2	8.1	0.0
STATION 2	1.50	0.10	5.6	0.3	8.1	0.0
STATION 2	3.00	0.20	5.6	0.5	8.1	0.0
STATION 2	1.30	0.20	5.6	0.2	8.1	0.0
STATION 2	0.40	0.10	5.6	0.1	8.1	0.0
STATION 2	0.50	<0.1	5.6	0.1	8.1	0.0
STATION 2	0.20	<0.1	5.6	0.0	8.1	0.0
STATION 2	2.60	0.10	5.6	0.5	8.1	0.0
STATION3	2.30	1.20	5.6	0.4	8.1	0.1
STATION3	1.50	0.50	5.6	0.3	8.1	0.1
STATION3	1.10	0.40	5.6	0.2	8.1	0.0
STATION3	0.60	0.20	5.6	0.1	8.1	0.0
STATION3	0.70	0.30	5.6	0.1	8.1	0.0
STATION3	0.30	0.10	5.6	0.1	8.1	0.0
STATION4	1.70	0.10	5.6	0.3	8.1	0.0
STATION4	1.70	0.20	5.6	0.3	8.1	0.0
STATION4	0.90	0.10	5.6	0.2	8.1	0.0
STATION4	0.50	0.20	5.6	0.1	8.1	0.0
STATION4	0.80	<0.1	5.6	0.1	8.1	0.0
STATION4	0.20	<0.1	5.6	0.0	8.1	0.0
STATION5	1.30	0.70	5.6	0.2	8.1	0.1
STATION5	1.20	0.20	5.6	0.2	8.1	0.0
STATION5	0.40	0.40	5.6	0.1	8.1	0.0
STATION5	0.70	1.20	5.6	0.1	8.1	0.1
STATION5	0.90	0.30	5.6	0.2	8.1	0.0
STATION5	1.70	0.20	5.6	0.3	8.1	0.0
STATION5	0.62	0.09	5.6	0.1	8.1	0.0
STATION5	1.20	0.04	5.6	0.2	8.1	0.0
STATION5	1.55	0.07	5.6	0.3	8.1	0.0
SB-6	1.40	0.5	5.6	0.3	8.1	0.1
SB-6	1.00	0.1	5.6	0.2	8.1	0.0
SB-6	0.40	0.3	5.6	0.1	8.1	0.0
SB-6	0.60	0.3	5.6	0.1	8.1	0.0
SB-6	1.00	0.2	5.6	0.2	8.1	0.0
SB-6	1.40	0.1	5.6	0.3	8.1	0.0
SB-7	1.50	0.7	5.6	0.3	8.1	0.1
SB-7	1.10	0.1	5.6	0.2	8.1	0.0
SB-7	0.40	0.1	5.6	0.1	8.1	0.0
SB-7	0.70	0.2	5.6	0.1	8.1	0.0
SB-7	0.70	0.2	5.6	0.1	8.1	0.0
SB-7	1.20	0.1	5.6	0.2	8.1	0.0
SB-7	0.83	0.10	5.6	0.1	8.1	0.0
C-6-0	3.14	0.9	5.6	0.6	8.1	0.1
C-6-0	1.60	0.1	5.6	0.3	8.1	0.0
C-6-0	1.75	0.35	5.6	0.3	8.1	0.0
C-6-0	4.20	1.00	5.6	0.8	8.1	0.1
C-6-0	1.00	0.13	5.6	0.2	8.1	0.0
C-6-0	2.20	0.3	5.6	0.4	8.1	0.0
Coyote Creek	3.46	0.0926	5.6	0.6	8.1	0.0
Coyote Creek	1.94	0.0893	5.6	0.3	8.1	0.0
			Total Exceedances	**0**		**0**
			Percent Exceedance	**0%**		**0%**
			Average Exceedance	**0.2**		**0.0**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR LEAD WITH SOUTH BAY WATER SAMPLES

DRY SEASON DATA

Station ID	Lead Total (µg/l)	Lead Dissolved (µg/l)	Total Objective (5.6 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (8.1 ug/L)	Exceedance Factor DISSOLVED
STATION 1	0.40	<0.1	5.6	0.1	8.1	0.0
STATION 1	1.00	0.10	5.6	0.2	8.1	0.0
STATION 1	1.30	<0.1	5.6	0.2	8.1	0.0
STATION 1	5.70	0.60	5.6	1.0	8.1	0.1
STATION 1	1.80	1.80	5.6	0.3	8.1	0.2
STATION 1	1.40	0.20	5.6	0.3	8.1	0.0
STATION 1	1.00	0.20	5.6	0.2	8.1	0.0
STATION 1	0.57	0.03	5.6	0.1	8.1	0.0
STATION 1	0.59	0.05	5.6	0.1	8.1	0.0
STATION 1	1.66	0.04	5.6	0.3	8.1	0.0
STATION 2	0.50	<0.1	5.6	0.1	8.1	0.0
STATION 2	0.40	0.10	5.6	0.1	8.1	0.0
STATION 2	5.50	0.30	5.6	1.0	8.1	0.0
STATION 2	2.50	0.40	5.6	0.4	8.1	0.0
STATION 2	1.70	1.30	5.6	0.3	8.1	0.2
STATION 2	1.30	<0.1	5.6	0.2	8.1	0.0
STATION 2	0.40	0.20	5.6	0.1	8.1	0.0
STATION3	1.20	0.10	5.6	0.2	8.1	0.0
STATION3	0.80	0.20	5.6	0.1	8.1	0.0
STATION3	3.20	1.50	5.6	0.6	8.1	0.2
STATION3	2.00	0.90	5.6	0.4	8.1	0.1
STATION3	2.20	1.00	5.6	0.4	8.1	0.1
STATION3	0.90	0.40	5.6	0.2	8.1	0.0
STATION4	1.30	0.30	5.6	0.2	8.1	0.0
STATION4	0.10	0.10	5.6	0.0	8.1	0.0
STATION4	2.40	0.40	5.6	0.4	8.1	0.0
STATION4	4.00	0.20	5.6	0.7	8.1	0.0
STATION4	1.90	1.70	5.6	0.3	8.1	0.2
STATION4	0.70	0.10	5.6	0.1	8.1	0.0
STATION5	0.60	0.30	5.6	0.1	8.1	0.0
STATION5	0.20	0.10	5.6	0.0	8.1	0.0
STATION5	0.80	0.10	5.6	0.1	8.1	0.0
STATION5	0.20	0.10	5.6	0.0	8.1	0.0
STATION5	1.70	0.20	5.6	0.3	8.1	0.0
STATION5	0.90	0.10	5.6	0.2	8.1	0.0
STATION5	0.41	0.02	5.6	0.1	8.1	0.0
STATION5	0.85	0.05	5.6	0.2	8.1	0.0
STATION5	0.93	0.05	5.6	0.2	8.1	0.0
SB-6	0.50	0.1	5.6	0.1	8.1	0.0
SB-6	0.20	0.1	5.6	0.0	8.1	0.0
SB-6	0.90	0.1	5.6	0.2	8.1	0.0
SB-6	1.20	0.1	5.6	0.2	8.1	0.0
SB-6	3.00	0.3	5.6	0.5	8.1	0.0
SB-6	0.50	0.6	5.6	0.1	8.1	0.1
SB-7	0.30	0.1	5.6	0.1	8.1	0.0
SB-7	0.10	0.1	5.6	0.0	8.1	0.0
SB-7	0.60	0.1	5.6	0.1	8.1	0.0
SB-7	0.21	0.1	5.6	0.0	8.1	0.0
SB-7	0.90	0.2	5.6	0.2	8.1	0.0
SB-7	0.20	0.1	5.6	0.0	8.1	0.0
SB-7	2.03	0.20	5.6	0.4	8.1	0.0
C-6-0	0.60	0.1	5.6	0.1	8.1	0.0
C-6-0	1.10	0.1	5.6	0.2	8.1	0.0
C-6-0	0.50	0.1	5.6	0.1	8.1	0.0
C-6-0	1.70	0.2	5.6	0.3	8.1	0.0
C-6-0	2.70	0.2	5.6	0.5	8.1	0.0
C-6-0	0.80	0.1	5.6	0.1	8.1	0.0
Coyote Creek	2.65	0.1077	5.6	0.5	8.1	0.0

Total Exceedances	1		0
Percent Exceedance	2%		0%
Average Exceedance	0.2		0.0

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR MERCURY WITH SOUTH BAY WATER SAMPLES
WET SEASON DATA

Station ID	Mercury Total (µg/l)	Mercury Dissolved (µg/l)	Total Objective (0.025 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (NA)	Exceedance Factor DISSOLVED
STATION 1	<0.02	<0.02	0.025	0.8	NA	
STATION 1	<0.02	<0.02	0.025	0.8	NA	
STATION 1	<0.02	<0.02	0.025	0.8	NA	
STATION 1	<0.02	<0.02	0.025	0.8	NA	
STATION 1	0.02	<0.02	0.025	0.8	NA	
STATION 1	<0.02	<0.02	0.025	0.8	NA	
STATION 1	0.0915	0.0018	0.025	3.7	NA	
STATION 1	0.00874	0.00282	0.025	0.3	NA	
STATION 1	0.0201	0.00147	0.025	0.8	NA	
STATION 1	0.0115	0.0022	0.025	0.5	NA	
STATION 2	<0.02	<0.02	0.025	0.8	NA	
STATION 2	<0.02	<0.02	0.025	0.8	NA	
STATION 2	<0.02	<0.02	0.025	0.8	NA	
STATION 2	<0.02	<0.02	0.025	0.8	NA	
STATION 2	<0.02	<0.02	0.025	0.8	NA	
STATION 2	<0.02	<0.02	0.025	0.8	NA	
STATION 2	0.0451	0.0018	0.025	1.8	NA	
STATION3	<0.02	<0.02	0.025	0.8	NA	
STATION3	0.05	<0.02	0.025	2.0	NA	
STATION3	<0.02	0.02	0.025	0.8	NA	
STATION3	<0.02	<0.02	0.025	0.8	NA	
STATION3	0.02	<0.02	0.025	0.8	NA	
STATION3	0.02	<0.02	0.025	0.8	NA	
STATION4	<0.02	<0.02	0.025	0.8	NA	
STATION4	<0.02	<0.02	0.025	0.8	NA	
STATION4	<0.02	<0.02	0.025	0.8	NA	
STATION4	<0.02	<0.02	0.025	0.8	NA	
STATION4	<0.02	<0.02	0.025	0.8	NA	
STATION4	<0.02	<0.02	0.025	0.8	NA	
STATION5	0.09	0.28	0.025	3.6	NA	
STATION5	0.05	0.05	0.025	2.0	NA	
STATION5	0.13	0.17	0.025	5.2	NA	
STATION5	0.02	0.02	0.025	0.8	NA	
STATION5	0.02	0.02	0.025	0.8	NA	
STATION5	0.04	0.02	0.025	1.6	NA	
STATION5	0.01002	0.0038	0.025	0.4	NA	
STATION5	0.0121	0.00183	0.025	0.5	NA	
STATION5	0.0162	0.0032	0.025	0.6	NA	
SB-6	0.130	0.160	0.025	5.2	NA	
SB-6	0.010	0.010	0.025	0.4	NA	
SB-6	0.070	0.080	0.025	2.8	NA	
SB-6	0.020	0.020	0.025	0.8	NA	
SB-6	0.050	0.040	0.025	2.0	NA	
SB-6	0.034	0.020	0.025	1.4	NA	
SB-7	0.200	0.170	0.025	8.0	NA	
SB-7	0.030	0.020	0.025	1.2	NA	
SB-7	0.070	0.040	0.025	2.8	NA	
SB-7	0.020	0.020	0.025	0.8	NA	
SB-7	0.020	0.040	0.025	0.8	NA	
SB-7	0.044	0.021	0.025	1.8	NA	
SB-7	0.02	0.02	0.025	0.8	NA	
C-6-0	0.240	0.160	0.025	9.6	NA	
C-6-0	0.080	0.020	0.025	3.2	NA	
C-6-0	0.06	0.04	0.025	2.2	NA	
C-6-0	0.07	0.03	0.025	2.6	NA	
C-6-0	0.13	0.11	0.025	5.2	NA	
C-6-0	0.034	0.028	0.025	1.4	NA	
Coyote Creek	0.0376	0.0019	0.025	1.5	NA	
Coyote Creek	0.0027	0.0186	0.025	0.1	NA	

Total Exceedances	**22**	**NA**
Percent Exceedance	**37%**	**NA**
Average Exceedance	**1.7**	**NA**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR MERCURY WITH SOUTH BAY WATER SAMPLES
DRY SEASON DATA

Station ID	Mercury Total (µg/l)	Mercury Dissolved (µg/l)	Total Objective (0.025 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (NA)	Exceedance Factor DISSOLVED
STATION 1	0.5	<0.2	0.025	20.0	NA	
STATION 1	<0.2	<0.2	0.025	8.0	NA	
STATION 1	<0.02	<0.02	0.025	0.8	NA	
STATION 1	<0.02	<0.02	0.025	0.8	NA	
STATION 1	<0.02	<0.02	0.025	0.8	NA	
STATION 1	<0.02	<0.02	0.025	0.8	NA	
STATION 1	0.04	0.06	0.025	1.6	NA	
STATION 1	0.00799	0.00136	0.025	0.3	NA	
STATION 1	0.00717	0.00234	0.025	0.3	NA	
STATION 1	0.0561	0.00642	0.025	2.2	NA	
STATION 2	0.6	0.3	0.025	24.0	NA	
STATION 2	<0.2	<0.2	0.025	8.0	NA	
STATION 2	<0.02	<0.02	0.025	0.8	NA	
STATION 2	<0.02	<0.02	0.025	0.8	NA	
STATION 2	<0.02	<0.02	0.025	0.8	NA	
STATION 2	<0.02	<0.02	0.025	0.8	NA	
STATION 2	0.03	0.06	0.025	1.2	NA	
STATION3	<0.2	<0.2	0.025	8.0	NA	
STATION3	<0.2	<0.2	0.025	8.0	NA	
STATION3	<0.02	<0.02	0.025	0.8	NA	
STATION3	<0.02	<0.02	0.025	0.8	NA	
STATION3	<0.02	<0.02	0.025	0.8	NA	
STATION3	<0.02	<0.02	0.025	0.8	NA	
STATION4	0.5	<0.2	0.025	20.0	NA	
STATION4	<0.2	<0.2	0.025	8.0	NA	
STATION4	<0.02	<0.02	0.025	0.8	NA	
STATION4	<0.02	<0.02	0.025	0.8	NA	
STATION4	<0.02	<0.02	0.025	0.8	NA	
STATION4	<0.02	<0.02	0.025	0.8	NA	
STATION5	0.02	0.02	0.025	0.8	NA	
STATION5	0.02	0.02	0.025	0.8	NA	
STATION5	0.08	0.08	0.025	3.2	NA	
STATION5	0.06	0.03	0.025	2.4	NA	
STATION5	0.04	0.02	0.025	1.6	NA	
STATION5	0.03	0.02	0.025	1.2	NA	
STATION5	0.00536	0.00193	0.025	0.2	NA	
STATION5	0.01369	0.00171	0.025	0.5	NA	
STATION5	0.0131	0.00176	0.025	0.5	NA	
SB-6	0.020	0.020	0.025	0.8	NA	
SB-6	0.020	0.020	0.025	0.8	NA	
SB-6	0.070	0.020	0.025	2.8	NA	
SB-6	0.060	0.020	0.025	2.4	NA	
SB-6	0.050	0.020	0.025	2.0	NA	
SB-6	0.030	0.020	0.025	1.2	NA	
SB-7	0.020	0.020	0.025	0.8	NA	
SB-7	0.020	0.020	0.025	0.8	NA	
SB-7	0.020	0.020	0.025	0.8	NA	
SB-7	0.290	0.060	0.025	11.6	NA	
SB-7	0.030	0.020	0.025	1.2	NA	
SB-7	0.020	0.020	0.025	0.8	NA	
SB-7	0.03	0.02	0.025	1.1	NA	
C-6-0	0.040	0.020	0.025	1.6	NA	
C-6-0	0.050	0.020	0.025	2.0	NA	
C-6-0	0.020	0.020	0.025	0.8	NA	
C-6-0	0.080	0.020	0.025	3.2	NA	
C-6-0	0.070	0.020	0.025	2.8	NA	
C-6-0	0.030	0.020	0.025	1.2	NA	
Coyote Creek	0.0797	0.0432	0.025	3.2	NA	
			Total Exceedances	28		NA
			Percent Exceedance	48%		NA
			Average Exceedance	3.0		NA

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR NICKEL WITH SOUTH BAY WATER SAMPLES
WET SEASON DATA

Station ID	Nickel Total (µg/l)	Nickel Dissolved (µg/l)	Total Objective (8.3 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (8.2 ug/L)	Exceedance Factor DISSOLVED
STATION 1	4.9	2.7	8.3	0.6	8.2	0.3
STATION 1	10.6	2	8.3	1.3	8.2	0.2
STATION 1	4.2	2.3	8.3	0.5	8.2	0.3
STATION 1	6.3	3.6	8.3	0.8	8.2	0.4
STATION 1	5.6	3.6	8.3	0.7	8.2	0.4
STATION 1	5.6	4.8	8.3	0.7	8.2	0.6
STATION 1	22	2.5	8.3	2.7	8.2	0.3
STATION 1	5.64	3.42	8.3	0.7	8.2	0.4
STATION 1	7.02	2.28	8.3	0.8	8.2	0.3
STATION 1	5.74	2.68	8.3	0.7	8.2	0.3
STATION 2	5.3	3.6	8.3	0.6	8.2	0.4
STATION 2	7.4	2	8.3	0.9	8.2	0.2
STATION 2	4.4	3.3	8.3	0.5	8.2	0.4
STATION 2	4.9	3.7	8.3	0.6	8.2	0.5
STATION 2	5.5	4.3	8.3	0.7	8.2	0.5
STATION 2	6.3	4.2	8.3	0.8	8.2	0.5
STATION 2	9.4	2.8	8.3	1.1	8.2	0.3
STATION3	5.2	4	8.3	0.6	8.2	0.5
STATION3	4.3	2.7	8.3	0.5	8.2	0.3
STATION3	4.4	3.1	8.3	0.5	8.2	0.4
STATION3	4.4	3.6	8.3	0.5	8.2	0.4
STATION3	5.5	4.6	8.3	0.7	8.2	0.6
STATION3	6.7	5.6	8.3	0.8	8.2	0.7
STATION4	5.7	2.7	8.3	0.7	8.2	0.3
STATION4	5	1.6	8.3	0.6	8.2	0.2
STATION4	4.4	2.8	8.3	0.5	8.2	0.3
STATION4	5.3	4.6	8.3	0.6	8.2	0.6
STATION4	5.2	5.5	8.3	0.6	8.2	0.7
STATION4	5.7	4.3	8.3	0.7	8.2	0.5
STATION5	9.2	2.5	8.3	1.1	8.2	0.3
STATION5	9.2	2.3	8.3	1.1	8.2	0.3
STATION5	6.4	3.5	8.3	0.8	8.2	0.4
STATION5	7.3	4.5	8.3	0.9	8.2	0.5
STATION5	7	4.2	8.3	0.8	8.2	0.5
STATION5	23	9.2	8.3	2.8	8.2	1.1
STATION5	5.17	3.56	8.3	0.6	8.2	0.4
STATION5	5.92	2.37	8.3	0.7	8.2	0.3
STATION5	7.17	3.50	8.3	0.9	8.2	0.4
SB-6	10.0	2.4	8.3	1.2	8.2	0.3
SB-6	6.6	2.6	8.3	0.8	8.2	0.3
SB-6	6.5	2.9	8.3	0.8	8.2	0.4
SB-6	7.0	4.8	8.3	0.8	8.2	0.6
SB-6	7.4	4.8	8.3	0.9	8.2	0.6
SB-6	14.0	10.0	8.3	1.7	8.2	1.2
SB-7	8.8	1.6	8.3	1.1	8.2	0.2
SB-7	8.4	3.0	8.3	1.0	8.2	0.4
SB-7	6.9	4.1	8.3	0.8	8.2	0.5
SB-7	7.4	4.4	8.3	0.9	8.2	0.5
SB-7	6.8	4.9	8.3	0.8	8.2	0.6
SB-7	12.5	10.6	8.3	1.5	8.2	1.3
SB-7	5.37	3.50	8.3	0.6	8.2	0.4
C-6-0	19.2	3.4	8.3	2.3	8.2	0.4
C-6-0	15.9	3.0	8.3	1.9	8.2	0.4
C-6-0	20.00	3.25	8.3	2.4	8.2	0.4
C-6-0	16.50	5.40	8.3	2.0	8.2	0.7
C-6-0	6.87	6.23	8.3	0.8	8.2	0.8
C-6-0	24.2	8.9	8.3	2.9	8.2	1.1
Coyote Creek	12.22	3.7	8.3	1.5	8.2	0.5
Coyote Creek	8.49	4.06	8.3	1.0	8.2	0.5

Total Exceedances	**18**	**4**
Percent Exceedance	**31%**	**7%**
Average Exceedance	**1.0**	**0.5**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR NICKEL WITH SOUTH BAY WATER SAMPLES
DRY SEASON DATA

Station ID	Nickel Total (µg/l)	Nickel Dissolved (µg/l)	Total Objective (8.3 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (8.2 ug/L)	Exceedance Factor DISSOLVED
STATION 1	3.7	2.7	8.3	0.4	8.2	0.3
STATION 1	6	1.6	8.3	0.7	8.2	0.2
STATION 1	4.9	2.7	8.3	0.6	8.2	0.3
STATION 1	15.1	4.4	8.3	1.8	8.2	0.5
STATION 1	6.3	5.1	8.3	0.8	8.2	0.6
STATION 1	6.9	2.6	8.3	0.8	8.2	0.3
STATION 1	6.5	4.6	8.3	0.8	8.2	0.6
STATION 1	4.52	2.73	8.3	0.5	8.2	0.3
STATION 1	4.30	2.81	8.3	0.5	8.2	0.3
STATION 1	7.73	3.07	8.3	0.9	8.2	0.4
STATION 2	6.3	2.7	8.3	0.8	8.2	0.3
STATION 2	5.4	2	8.3	0.7	8.2	0.2
STATION 2	12.2	4.3	8.3	1.5	8.2	0.5
STATION 2	10.3	4.7	8.3	1.2	8.2	0.6
STATION 2	6.6	3.6	8.3	0.8	8.2	0.4
STATION 2	6.3	3.4	8.3	0.8	8.2	0.4
STATION 2	5.7	5.2	8.3	0.7	8.2	0.6
STATION3	9	5.3	8.3	1.1	8.2	0.6
STATION3	5.8	2.9	8.3	0.7	8.2	0.4
STATION3	7.2	6.1	8.3	0.9	8.2	0.7
STATION3	9.2	6.9	8.3	1.1	8.2	0.8
STATION3	9.4	4.1	8.3	1.1	8.2	0.5
STATION3	5.9	4	8.3	0.7	8.2	0.5
STATION4	7.7	5.5	8.3	0.9	8.2	0.7
STATION4	4.2	3.6	8.3	0.5	8.2	0.4
STATION4	6.6	4.7	8.3	0.8	8.2	0.6
STATION4	12	4.8	8.3	1.4	8.2	0.6
STATION4	8	4.1	8.3	1.0	8.2	0.5
STATION4	5.1	3.9	8.3	0.6	8.2	0.5
STATION5	5.6	3.7	8.3	0.7	8.2	0.5
STATION5	4.1	3.1	8.3	0.5	8.2	0.4
STATION5	8.1	3.1	8.3	1.0	8.2	0.4
STATION5	14	5.4	8.3	1.7	8.2	0.7
STATION5	12	6.2	8.3	1.4	8.2	0.8
STATION5	8.4	4	8.3	1.0	8.2	0.5
STATION5	4.25	2.79	8.3	0.5	8.2	0.3
STATION5	5.65	2.94	8.3	0.7	8.2	0.4
STATION5	6.25	3.37	8.3	0.8	8.2	0.4
SB-6	8.3	4.6	8.3	1.0	8.2	0.6
SB-6	4.4	3.3	8.3	0.5	8.2	0.4
SB-6	8.3	11.8	8.3	1.0	8.2	1.4
SB-6	16.0	7.6	8.3	1.9	8.2	0.9
SB-6	16.0	6.3	8.3	1.9	8.2	0.8
SB-6	7.8	4.8	8.3	0.9	8.2	0.6
SB-7	7.9	5.2	8.3	1.0	8.2	0.6
SB-7	4.3	3.7	8.3	0.5	8.2	0.5
SB-7	8.3	4.2	8.3	1.0	8.2	0.5
SB-7	13.0	6.8	8.3	1.6	8.2	0.8
SB-7	13.0	6.3	8.3	1.6	8.2	0.8
SB-7	7.4	5.0	8.3	0.9	8.2	0.6
SB-7	9.43	4.23	8.3	1.1	8.2	0.5
C-6-0	10.0	5.3	8.3	1.2	8.2	0.6
C-6-0	9.3	3.5	8.3	1.1	8.2	0.4
C-6-0	6.1	4.6	8.3	0.7	8.2	0.6
C-6-0	13.0	7.8	8.3	1.6	8.2	1.0
C-6-0	22.0	6.2	8.3	2.7	8.2	0.8
C-6-0	9.0	4.3	8.3	1.1	8.2	0.5
Coyote Creek	11.69	4.63	8.3	1.4	8.2	0.6
			Total Exceedances	**21**		**1**
			Percent Exceedance	**36%**		**2%**
			Average Exceedance	**1.0**		**0.5**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR SELENIUM WITH SOUTH BAY WATER SAMPLES
WET SEASON DATA

Station ID	Selenium Total (µg/l)	Selenium Dissolved (µg/l)	Total Objective (5 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (71 ug/L)	Exceedance Factor DISSOLVED
STATION 1	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION 1	0.7	<0.1	5.0	0.1	71.0	0.0
STATION 1	0.1	0.1	5.0	0.0	71.0	0.0
STATION 1	0.2	<0.1	5.0	0.0	71.0	0.0
STATION 1	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION 1	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION 1	0.5	0.3	5.0	0.1	71.0	0.0
STATION 1	0.28	0.28	5.0	0.1	71.0	0.0
STATION 1	0.40	0.25	5.0	0.1	71.0	0.0
STATION 1	0.32	0.24	5.0	0.1	71.0	0.0
STATION 2	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION 2	0.8	<0.1	5.0	0.2	71.0	0.0
STATION 2	0.1	0.1	5.0	0.0	71.0	0.0
STATION 2	0.2	<0.1	5.0	0.0	71.0	0.0
STATION 2	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION 2	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION 2	0.4	0.4	5.0	0.1	71.0	0.0
STATION3	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION3	0.8	0.4	5.0	0.2	71.0	0.0
STATION3	0.1	0.1	5.0	0.0	71.0	0.0
STATION3	0.2	<0.1	5.0	0.0	71.0	0.0
STATION3	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION3	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION4	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION4	0.8	<0.1	5.0	0.2	71.0	0.0
STATION4	<0.1	0.1	5.0	0.0	71.0	0.0
STATION4	0.3	<0.1	5.0	0.1	71.0	0.0
STATION4	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION4	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION5	0.3	0.2	5.0	0.1	71.0	0.0
STATION5	0.2	0.2	5.0	0.0	71.0	0.0
STATION5	0.2	0.2	5.0	0.0	71.0	0.0
STATION5	0.1	0.1	5.0	0.0	71.0	0.0
STATION5	0.1	0.1	5.0	0.0	71.0	0.0
STATION5	0.1	0.1	5.0	0.0	71.0	0.0
STATION5	0.37	0.51	5.0	0.1	71.0	0.0
STATION5	0.38	0.24	5.0	0.1	71.0	0.0
STATION5	0.33	0.33	5.0	0.1	71.0	0.0
SB-6	0.2	0.2	5.0	0.0	71.0	0.0
SB-6	0.2	0.2	5.0	0.0	71.0	0.0
SB-6	0.2	0.2	5.0	0.0	71.0	0.0
SB-6	0.2	0.1	5.0	0.0	71.0	0.0
SB-6	0.2	0.1	5.0	0.0	71.0	0.0
SB-6	0.2	0.2	5.0	0.0	71.0	0.0
SB-7	0.2	0.2	5.0	0.0	71.0	0.0
SB-7	0.2	0.3	5.0	0.0	71.0	0.0
SB-7	0.2	0.2	5.0	0.0	71.0	0.0
SB-7	0.2	0.2	5.0	0.0	71.0	0.0
SB-7	0.2	0.2	5.0	0.0	71.0	0.0
SB-7	0.2	0.1	5.0	0.0	71.0	0.0
SB-7	0.37	0.37	5.0	0.1	71.0	0.0
C-6-0	0.2	0.2	5.0	0.0	71.0	0.0
C-6-0	0.3	0.3	5.0	0.1	71.0	0.0
C-6-0	0.30	0.20	5.0	0.1	71.0	0.0
C-6-0	0.20	0.15	5.0	0.0	71.0	0.0
C-6-0	0.17	0.10	5.0	0.0	71.0	0.0
C-6-0	0.2	0.2	5.0	0.0	71.0	0.0
Coyote Creek	0.42	0.46	5.0	0.1	71.0	0.0
Coyote Creek	0.36	0.39	5.0	0.1	71.0	0.0

Total Exceedances	0	0
Percent Exceedance	0%	0%
Average Exceedance	0.0	0.0

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR SELENIUM WITH SOUTH BAY WATER SAMPLES
DRY SEASON DATA

Station ID	Selenium Total (µg/l)	Selenium Dissolved (µg/l)	Total Objective (5 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (71 ug/L)	Exceedance Factor DISSOLVED
STATION 1	<0.1	0.1	5.0	0.0	71.0	0.0
STATION 1	0.1	0.4	5.0	0.0	71.0	0.0
STATION 1	0.1	<0.1	5.0	0.0	71.0	0.0
STATION 1	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION 1	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION 1	0.2	0.1	5.0	0.0	71.0	0.0
STATION 1	0.3	0.3	5.0	0.1	71.0	0.0
STATION 1	0.26	0.22	5.0	0.1	71.0	0.0
STATION 1	0.26	0.22	5.0	0.1	71.0	0.0
STATION 1	0.32	0.28	5.0	0.1	71.0	0.0
STATION 2	0.7	0.6	5.0	0.1	71.0	0.0
STATION 2	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION 2	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION 2	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION 2	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION 2	0.3	0.1	5.0	0.1	71.0	0.0
STATION 2	0.3	0.2	5.0	0.1	71.0	0.0
STATION3	0.5	0.6	5.0	0.1	71.0	0.0
STATION3	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION3	0.3	0.2	5.0	0.1	71.0	0.0
STATION3	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION3	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION3	0.5	0.2	5.0	0.1	71.0	0.0
STATION4	<0.1	0.1	5.0	0.0	71.0	0.0
STATION4	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION4	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION4	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION4	<0.1	<0.1	5.0	0.0	71.0	0.0
STATION4	0.2	0.1	5.0	0.0	71.0	0.0
STATION5	0.1	0.1	5.0	0.0	71.0	0.0
STATION5	0.1	0.2	5.0	0.0	71.0	0.0
STATION5	0.2	0.2	5.0	0.0	71.0	0.0
STATION5	0.3	0.1	5.0	0.1	71.0	0.0
STATION5	0.1	0.1	5.0	0.0	71.0	0.0
STATION5	0.2	0.2	5.0	0.0	71.0	0.0
STATION5	0.30	0.25	5.0	0.1	71.0	0.0
STATION5	0.41	0.21	5.0	0.1	71.0	0.0
STATION5	0.23	0.26	5.0	0.0	71.0	0.0
SB-6	0.1	0.2	5.0	0.0	71.0	0.0
SB-6	0.2	0.2	5.0	0.0	71.0	0.0
SB-6	0.2	0.2	5.0	0.0	71.0	0.0
SB-6	0.2	0.2	5.0	0.0	71.0	0.0
SB-6	0.2	0.2	5.0	0.0	71.0	0.0
SB-6	0.1	0.2	5.0	0.0	71.0	0.0
SB-7	0.2	0.1	5.0	0.0	71.0	0.0
SB-7	0.1	0.1	5.0	0.0	71.0	0.0
SB-7	0.2	0.2	5.0	0.0	71.0	0.0
SB-7	0.3	0.2	5.0	0.1	71.0	0.0
SB-7	0.1	0.1	5.0	0.0	71.0	0.0
SB-7	0.3	0.2	5.0	0.1	71.0	0.0
SB-7	0.20	0.20	5.0	0.0	71.0	0.0
C-6-0	0.1	0.2	5.0	0.0	71.0	0.0
C-6-0	0.2	0.1	5.0	0.0	71.0	0.0
C-6-0	0.2	0.2	5.0	0.0	71.0	0.0
C-6-0	0.3	0.2	5.0	0.1	71.0	0.0
C-6-0	0.3	0.2	5.0	0.1	71.0	0.0
C-6-0	0.2	0.2	5.0	0.0	71.0	0.0
Coyote Creek	0.35	0.34	5.0	0.1	71.0	0.0

	TOTAL	DISSOLVED
Total Exceedances	0	0
Percent Exceedance	0%	0%
Average Exceedance	0.0	0.0

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR SILVER WITH SOUTH BAY WATER SAMPLES
WET SEASON DATA

Station ID	Silver Total (µg/l)	Silver Dissolved (µg/l)	Total Objective (2.3 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (NA)	Exceedance Factor DISSOLVED
STATION 1	0.22	0.21	5.0	0.0	NA	
STATION 1	1.3	0.4	5.0	0.3	NA	
STATION 1	0.81	0.09	5.0	0.2	NA	
STATION 1	0.1	0.06	5.0	0.0	NA	
STATION 1	0.05	0.07	5.0	0.0	NA	
STATION 1	0.05	0.02	5.0	0.0	NA	
STATION 1	0.11	<0.02	5.0	0.0	NA	
STATION 1	0.00798	0.00104	5.0	0.0	NA	
STATION 1	0.0351	0.0055	5.0	0.0	NA	
STATION 1	0.0191	0.0051	5.0	0.0	NA	
STATION 2	0.41	0.15	5.0	0.1	NA	
STATION 2	0.25	0.05	5.0	0.1	NA	
STATION 2	0.99	0.18	5.0	0.2	NA	
STATION 2	0.06	0.03	5.0	0.0	NA	
STATION 2	0.05	0.04	5.0	0.0	NA	
STATION 2	0.06	0.02	5.0	0.0	NA	
STATION 2	0.06	<0.02	5.0	0.0	NA	
STATION3	1.19	0.66	5.0	0.2	NA	
STATION3	0.7	0.11	5.0	0.1	NA	
STATION3	1.21	0.43	5.0	0.2	NA	
STATION3	0.2	0.16	5.0	0.0	NA	
STATION3	0.31	0.14	5.0	0.1	NA	
STATION3	0.11	0.05	5.0	0.0	NA	
STATION4	0.63	0.07	5.0	0.1	NA	
STATION4	0.21	0.12	5.0	0.0	NA	
STATION4	0.94	0.23	5.0	0.2	NA	
STATION4	0.06	0.04	5.0	0.0	NA	
STATION4	0.07	0.04	5.0	0.0	NA	
STATION4	0.05	0.02	5.0	0.0	NA	
STATION5	0.64	0.31	5.0	0.1	NA	
STATION5	0.76	0.16	5.0	0.2	NA	
STATION5	0.3	0.27	5.0	0.1	NA	
STATION5	0.02	0.09	5.0	0.0	NA	
STATION5	0.04	0.02	5.0	0.0	NA	
STATION5	0.03	0.03	5.0	0.0	NA	
STATION5	0.00644	0.00208	5.0	0.0	NA	
STATION5	0.0052	0.0052	5.0	0.0	NA	
STATION5	0.0343	0.0073	5.0	0.0	NA	
SB-6	0.78	0.180	5.0	0.2	NA	
SB-6	0.82	0.080	5.0	0.2	NA	
SB-6	0.26	0.220	5.0	0.1	NA	
SB-6	0.03	0.020	5.0	0.0	NA	
SB-6	0.03	0.040	5.0	0.0	NA	
SB-6	0.03	0.020	5.0	0.0	NA	
SB-7	0.69	0.750	5.0	0.1	NA	
SB-7	0.85	0.110	5.0	0.2	NA	
SB-7	0.18	0.070	5.0	0.0	NA	
SB-7	0.03	0.020	5.0	0.0	NA	
SB-7	0.04	0.020	5.0	0.0	NA	
SB-7	0.02	0.030	5.0	0.0	NA	
SB-7	0.02	0.02	5.0	0.0	NA	
C-6-0	0.21	0.320	5.0	0.0	NA	
C-6-0	0.67	0.100	5.0	0.1	NA	
C-6-0	0.68	0.23	5.0	0.1	NA	
C-6-0	0.05	0.02	5.0	0.0	NA	
C-6-0	0.06	0.03	5.0	0.0	NA	
C-6-0	0.03	0.020	5.0	0.0	NA	
Coyote Creek	0.0658	0.0035	5.0	0.0	NA	
Coyote Creek	0.0395	0.0053	5.0	0.0	NA	

Total Exceedances	**0**	**NA**
Percent Exceedance	**0%**	**NA**
Average Exceedance	**0.1**	**NA**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR SILVER WITH SOUTH BAY WATER SAMPLES
DRY SEASON DATA

Station ID	Silver Total (µg/l)	Silver Dissolved (µg/l)	Total Objective (2.3 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (NA)	Exceedance Factor DISSOLVED
STATION 1	0.05	0.07	5.0	0.0	NA	
STATION 1	0.05	0.03	5.0	0.0	NA	
STATION 1	<0.02	<0.02	5.0	0.0	NA	
STATION 1	0.5	0.15	5.0	0.1	NA	
STATION 1	0.42	0.1	5.0	0.1	NA	
STATION 1	0.19	0.04	5.0	0.0	NA	
STATION 1	0.02	0.03	5.0	0.0	NA	
STATION 1	0.018	0.00828	5.0	0.0	NA	
STATION 1	0.119	0.00497	5.0	0.0	NA	
STATION 1	0.026	0.0094	5.0	0.0	NA	
STATION 2	0.07	0.05	5.0	0.0	NA	
STATION 2	0.06	0.04	5.0	0.0	NA	
STATION 2	0.19	0.09	5.0	0.0	NA	
STATION 2	0.48	0.16	5.0	0.1	NA	
STATION 2	0.65	0.07	5.0	0.1	NA	
STATION 2	0.39	0.04	5.0	0.1	NA	
STATION 2	0.02	0.02	5.0	0.0	NA	
STATION3	0.8	0.83	5.0	0.2	NA	
STATION3	0.31	0.09	5.0	0.1	NA	
STATION3	0.73	0.27	5.0	0.1	NA	
STATION3	0.46	0.23	5.0	0.1	NA	
STATION3	0.6	0.44	5.0	0.1	NA	
STATION3	0.29	0.14	5.0	0.1	NA	
STATION4	0.06	0.04	5.0	0.0	NA	
STATION4	0.03	0.03	5.0	0.0	NA	
STATION4	<0.02	<0.02	5.0	0.0	NA	
STATION4	0.2	0.09	5.0	0.0	NA	
STATION4	0.13	0.08	5.0	0.0	NA	
STATION4	0.11	0.02	5.0	0.0	NA	
STATION5	0.04	0.02	5.0	0.0	NA	
STATION5	0.08	0.22	5.0	0.0	NA	
STATION5	0.63	0.18	5.0	0.1	NA	
STATION5	0.32	0.06	5.0	0.1	NA	
STATION5	0.24	0.46	5.0	0.0	NA	
STATION5	0.42	0.27	5.0	0.1	NA	
STATION5	0.01762	0.00844	5.0	0.0	NA	
STATION5	0.14178	0.00524	5.0	0.0	NA	
STATION5	0.0248	0.006	5.0	0.0	NA	
SB-6	0.17	0.060	5.0	0.0	NA	
SB-6	0.08	0.040	5.0	0.0	NA	
SB-6	0.43	0.220	5.0	0.1	NA	
SB-6	0.28	0.050	5.0	0.1	NA	
SB-6	0.34	0.130	5.0	0.1	NA	
SB-6	0.39	0.320	5.0	0.1	NA	
SB-7	0.15	0.150	5.0	0.0	NA	
SB-7	0.28	0.300	5.0	0.1	NA	
SB-7	0.51	0.240	5.0	0.1	NA	
SB-7	0.21	0.040	5.0	0.0	NA	
SB-7	0.26	0.160	5.0	0.1	NA	
SB-7	0.32	0.250	5.0	0.1	NA	
SB-7	0.03	0.02	5.0	0.0	NA	
C-6-0	0.14	0.140	5.0	0.0	NA	
C-6-0	0.53	0.250	5.0	0.1	NA	
C-6-0	0.25	0.070	5.0	0.1	NA	
C-6-0	0.24	0.030	5.0	0.0	NA	
C-6-0	0.32	0.080	5.0	0.1	NA	
C-6-0	0.47	0.520	5.0	0.1	NA	
Coyote Creek	0.0335	0.0062	5.0	0.0	NA	

Total Exceedances	0	NA
Percent Exceedance	0%	NA
Average Exceedance	0.0	NA

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR ZINC WITH SOUTH BAY WATER SAMPLES
WET SEASON DATA

Station ID	Zinc Total (µg/l)	Zinc Dissolved (µg/l)	Total Objective (86 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (81 ug/L)	Exceedance Factor DISSOLVED
STATION 1	3.4	2.1	86.0	0.0	81.0	0.0
STATION 1	22.2	7.6	86.0	0.3	81.0	0.1
STATION 1	6	3.5	86.0	0.1	81.0	0.0
STATION 1	8.4	4.4	86.0	0.1	81.0	0.1
STATION 1	15.4	3.2	86.0	0.2	81.0	0.0
STATION 1	16.8	4.1	86.0	0.2	81.0	0.1
STATION 1	15	1.7	86.0	0.2	81.0	0.0
STATION 1	4.13	2.61	86.0	0.0	81.0	0.0
STATION 1	8.02	1.45	86.0	0.1	81.0	0.0
STATION 1	8.63	1.10	86.0	0.1	81.0	0.0
STATION 2	4.2	2.4	86.0	0.0	81.0	0.0
STATION 2	17.6	4.5	86.0	0.2	81.0	0.1
STATION 2	19	5.7	86.0	0.2	81.0	0.1
STATION 2	17	5	86.0	0.2	81.0	0.1
STATION 2	19	3.9	86.0	0.2	81.0	0.0
STATION 2	5.6	5.6	86.0	0.1	81.0	0.1
STATION 2	8.6	1.2	86.0	0.1	81.0	0.0
STATION3	61.2	16.1	86.0	0.7	81.0	0.2
STATION3	19	13.8	86.0	0.2	81.0	0.2
STATION3	15	13	86.0	0.2	81.0	0.2
STATION3	14	9.4	86.0	0.2	81.0	0.1
STATION3	16.1	8	86.0	0.2	81.0	0.1
STATION3	15.2	8	86.0	0.2	81.0	0.1
STATION4	8.2	0.7	86.0	0.1	81.0	0.0
STATION4	10.8	4.9	86.0	0.1	81.0	0.1
STATION4	6	4.2	86.0	0.1	81.0	0.1
STATION4	17	9.2	86.0	0.2	81.0	0.1
STATION4	6.5	4.3	86.0	0.1	81.0	0.1
STATION4	6	4.8	86.0	0.1	81.0	0.1
STATION5	17	2	86.0	0.2	81.0	0.0
STATION5	11	3.3	86.0	0.1	81.0	0.0
STATION5	12	2.4	86.0	0.1	81.0	0.0
STATION5	8.2	2.2	86.0	0.1	81.0	0.0
STATION5	2.5	1.6	86.0	0.0	81.0	0.0
STATION5	16	3.1	86.0	0.2	81.0	0.0
STATION5	6.65	3.08	86.0	0.1	81.0	0.0
STATION5	6.56	1.64	86.0	0.1	81.0	0.0
STATION5	11.47	2.54	86.0	0.1	81.0	0.0
SB-6	14.7	2.3	86.0	0.2	81.0	0.0
SB-6	10.1	3.8	86.0	0.1	81.0	0.0
SB-6	11.0	2.4	86.0	0.1	81.0	0.0
SB-6	7.2	2.6	86.0	0.1	81.0	0.0
SB-6	3.4	1.9	86.0	0.0	81.0	0.0
SB-6	9.0	3.7	86.0	0.1	81.0	0.0
SB-7	13.2	3.0	86.0	0.2	81.0	0.0
SB-7	8.0	2.9	86.0	0.1	81.0	0.0
SB-7	17.0	8.3	86.0	0.2	81.0	0.1
SB-7	6.7	0.3	86.0	0.1	81.0	0.0
SB-7	3.5	2.4	86.0	0.0	81.0	0.0
SB-7	9.0	3.3	86.0	0.1	81.0	0.0
SB-7	1.20	1.20	86.0	0.0	81.0	0.0
C-6-0	27.7	3.8	86.0	0.3	81.0	0.0
C-6-0	19.9	5.1	86.0	0.2	81.0	0.1
C-6-0	44.00	6.55	86.0	0.5	81.0	0.1
C-6-0	23.00	4.95	86.0	0.3	81.0	0.1
C-6-0	13.60	6.43	86.0	0.2	81.0	0.1
C-6-0	27.9	4.0	86.0	0.3	81.0	0.0
Coyote Creek	25.65	6.36	86.0	0.3	81.0	0.1
Coyote Creek	14.23	3.82	86.0	0.2	81.0	0.0

Total Exceedances	0	0
Percent Exceedance	0%	0%
Average Exceedance	0.2	0.1

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR ZINC WITH SOUTH BAY WATER SAMPLES
DRY SEASON DATA

Station ID	Zinc Total (µg/l)	Zinc Dissolved (µg/l)	Total Objective (86 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (81 ug/L)	Exceedance Factor DISSOLVED
STATION 1	2	1.6	86.0	0.0	81.0	0.0
STATION 1	5.1	0.9	86.0	0.1	81.0	0.0
STATION 1	7.1	1.8	86.0	0.1	81.0	0.0
STATION 1	20	6	86.0	0.2	81.0	0.1
STATION 1	12	7	86.0	0.1	81.0	0.1
STATION 1	49	6.5	86.0	0.6	81.0	0.1
STATION 1	4.1	2	86.0	0.0	81.0	0.0
STATION 1	2.76	0.55	86.0	0.0	81.0	0.0
STATION 1	3.26	0.94	86.0	0.0	81.0	0.0
STATION 1	7.82	0.62	86.0	0.1	81.0	0.0
STATION 2	3.3	6.4	86.0	0.0	81.0	0.1
STATION 2	2.5	1.1	86.0	0.0	81.0	0.0
STATION 2	19	6.3	86.0	0.2	81.0	0.1
STATION 2	12	11	86.0	0.1	81.0	0.1
STATION 2	12	12	86.0	0.1	81.0	0.1
STATION 2	25	7.2	86.0	0.3	81.0	0.1
STATION 2	3.5	2.5	86.0	0.0	81.0	0.0
STATION3	72	40	86.0	0.8	81.0	0.5
STATION3	7.1	1.7	86.0	0.1	81.0	0.0
STATION3	35	32	86.0	0.4	81.0	0.4
STATION3	40	20	86.0	0.5	81.0	0.2
STATION3	43	23	86.0	0.5	81.0	0.3
STATION3	29	14	86.0	0.3	81.0	0.2
STATION4	7	5	86.0	0.1	81.0	0.1
STATION4	2.3	0.4	86.0	0.0	81.0	0.0
STATION4	11	3.9	86.0	0.1	81.0	0.0
STATION4	20	4	86.0	0.2	81.0	0.0
STATION4	13	3	86.0	0.2	81.0	0.0
STATION4	23	7.6	86.0	0.3	81.0	0.1
STATION5	3	3.3	86.0	0.0	81.0	0.0
STATION5	4.1	4.3	86.0	0.0	81.0	0.1
STATION5	10	3.8	86.0	0.1	81.0	0.0
STATION5	13	1.2	86.0	0.2	81.0	0.0
STATION5	11	1.2	86.0	0.1	81.0	0.0
STATION5	10	0.9	86.0	0.1	81.0	0.0
STATION5	2.17	0.56	86.0	0.0	81.0	0.0
STATION5	4.82	1.12	86.0	0.1	81.0	0.0
STATION5	5.46	0.77	86.0	0.1	81.0	0.0
SB-6	4.7	0.4	86.0	0.1	81.0	0.0
SB-6	4.9	3.5	86.0	0.1	81.0	0.0
SB-6	10.2	4.0	86.0	0.1	81.0	0.0
SB-6	12.0	2.9	86.0	0.1	81.0	0.0
SB-6	16.0	1.6	86.0	0.2	81.0	0.0
SB-6	10.0	1.2	86.0	0.1	81.0	0.0
SB-7	5.2	2.5	86.0	0.1	81.0	0.0
SB-7	4.6	3.7	86.0	0.1	81.0	0.0
SB-7	7.7	4.8	86.0	0.1	81.0	0.1
SB-7	7.0	1.8	86.0	0.1	81.0	0.0
SB-7	12.0	1.9	86.0	0.1	81.0	0.0
SB-7	8.9	1.5	86.0	0.1	81.0	0.0
SB-7	5.87	1.70	86.0	0.1	81.0	0.0
C-6-0	8.2	2.2	86.0	0.1	81.0	0.0
C-6-0	12.0	4.1	86.0	0.1	81.0	0.1
C-6-0	7.9	6.4	86.0	0.1	81.0	0.1
C-6-0	17.0	2.4	86.0	0.2	81.0	0.0
C-6-0	29.0	2.8	86.0	0.3	81.0	0.0
C-6-0	19.0	1.3	86.0	0.2	81.0	0.0
Coyote Creek	12.26	1.43	86.0	0.1	81.0	0.0

Total Exceedances	0	0
Percent Exceedance	0%	0%
Average Exceedance	0.2	0.1

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR CADMIUM WITH SOUTH BAY SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Cadmium Total (mg/kg)	Objective (5 mg/kg)	Exceedance Factor
STATION1	0.06	5	0.0
STATION1	0.1	5	0.0
STATION1	<0.05	5	0.0
STATION1	0.16	5	0.0
STATION1	0.75	5	0.2
STATION1	0.42	5	0.1
STATION1	0.1	5	0.0
STATION1	0.15	5	0.0
STATION1	0.19	5	0.0
STATION2	0.05	5	0.0
STATION2	0.08	5	0.0
STATION2	<0.05	5	0.0
STATION2	0.16	5	0.0
STATION2	0.64	5	0.1
STATION2	0.53	5	0.1
STATION2	0.17	5	0.0
STATION3	<0.05	5	0.0
STATION3	0.16	5	0.0
STATION3	<0.05	5	0.0
STATION3	0.28	5	0.1
STATION3	1.16	5	0.2
STATION3	0.89	5	0.2
STATION4	0.06	5	0.0
STATION4	0.21	5	0.0
STATION4	<0.05	5	0.0
STATION4	0.42	5	0.1
STATION4	0.34	5	0.1
STATION4	0.22	5	0.0
STATION4	0.29	5	0.1
STATION4	1.08	5	0.2
STATION4	0.98	5	0.2
STATION4	<0.2	5	0.0
STATION4	0.21	5	0.0
STATION4	0.38	5	0.1
STATION4	<0.2	5	0.0
STATION4	<0.2	5	0.0
STATION4	<0.2	5	0.0
STATION4	<0.2	5	0.0
STATION4	<0.2	5	0.0
STATION4	0.17	5	0.0
STATION4	0.17	5	0.0
STATION4	0.16	5	0.0
STATION4	0.18	5	0.0
STATION4	0.28	5	0.1
STATION4	0.22	5	0.0
STATION4	0.22	5	0.0
STATION4	0.17	5	0.0
STATION4	0.2	5	0.0

Station ID	Cadmium Total (mg/kg)	Objective (5 mg/kg)	Exceedance Factor
STATION4	0.37	5	0.1
STATION4	0.31	5	0.1
STATION4	0.23	5	0.0
STATION4	0.24	5	0.0
STATION5	0.16	5	0.0
STATION5	0.22	5	0.0
STATION5	0.38	5	0.1
STATION5	0.33	5	0.1
STATION5	0.18	5	0.0
STATION5	0.18	5	0.0
STATION5	0.15	5	0.0
STATION5	0.15	5	0.0
C-6-0	0.297	5	0.1
C-6-0	0.323	5	0.1
C-6-0	0.207	5	0.0
C-6-0	0.207	5	0.0
C-6-0	0.220	5	0.0
C-6-0	0.333	5	0.1
C-6-0	0.18	5	0.0
C-6-0	0.26	5	0.1
SB-6	0.19	5	0.0
SB-6	0.31	5	0.1
SB-6	0.34	5	0.1
SB-6	0.22	5	0.0
SB-6	0.20	5	0.0
SB-6	0.21	5	0.0
SB-7	0.19	5	0.0
SB-7	0.21	5	0.0
SB-7	0.41	5	0.1
SB-7	0.25	5	0.1
SB-7	0.16	5	0.0
SB-7	0.27	5	0.1

Total Exceedances	**0**
Percent Exceedance	**0.00%**
Average Exceedance Factor	**0.05**

Cd

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR CADMIUM WITH SOUTH BAY SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Cadmium Total (mg/kg)	Objective (5 mg/kg)	Exceedance Factor
STATION1	0.25	5	0.1
STATION1	0.12	5	0.0
STATION1	0.3	5	0.1
STATION1	0.27	5	0.1
STATION1	0.21	5	0.0
STATION1	0.2	5	0.0
STATION1	0.15	5	0.0
STATION1	0.04	5	0.0
STATION1	0.16	5	0.0
STATION2	0.2	5	0.0
STATION2	0.2	5	0.0
STATION2	0.33	5	0.1
STATION2	0.38	5	0.1
STATION2	0.28	5	0.1
STATION2	0.23	5	0.0
STATION2	0.21	5	0.0
STATION3	0.29	5	0.1
STATION3	0.13	5	0.0
STATION3	0.43	5	0.1
STATION3	0.55	5	0.1
STATION3	0.36	5	0.1
STATION3	0.28	5	0.1
STATION4	0.35	5	0.1
STATION4	0.26	5	0.1
STATION4	0.51	5	0.1
STATION4	0.68	5	0.1
STATION4	<0.2	5	0.0
STATION4	0.42	5	0.1
STATION4	0.32	5	0.1
STATION4	0.39	5	0.1
STATION4	0.56	5	0.1
STATION4	<0.2	5	0.0
STATION4	<0.2	5	0.0
STATION4	<0.2	5	0.0
STATION4	<0.2	5	0.0
STATION4	<0.2	5	0.0
STATION4	<0.2	5	0.0
STATION4	0.30	5	0.1
STATION4	0.19	5	0.0
STATION4	0.20	5	0.0
STATION4	0.09	5	0.0
STATION4	0.10	5	0.0
STATION4	<0.2	5	0.0
STATION4	0.21	5	0.0
STATION4	0.19	5	0.0
STATION4	0.23	5	0.0
STATION4	0.17	5	0.0

Station ID	Cadmium Total (mg/kg)	Objective (5 mg/kg)	Exceedance Factor
STATION5	0.20	5	0.0
STATION5	0.20	5	0.0
STATION5	0.17	5	0.0
STATION5	0.19	5	0.0
STATION5	0.16	5	0.0
STATION5	0.20	5	0.0
STATION5	0.15	5	0.0
STATION5	0.04	5	0.0
STATION5	0.16	5	0.0
C-6-0	0.553	5	0.1
C-6-0	0.357	5	0.1
C-6-0	0.270	5	0.1
C-6-0	0.267	5	0.1
C-6-0	0.257	5	0.1
C-6-0	0.323	5	0.1
C-6-0	0.2	5	0.0
C-6-0	0.14	5	0.0
SB-6	0.21	5	0.0
SB-6	0.16	5	0.0
SB-6	0.21	5	0.0
SB-6	0.23	5	0.0
SB-6	0.18	5	0.0
SB-6	0.21	5	0.0
SB-7	0.42	5	0.1
SB-7	0.13	5	0.0
SB-7	0.21	5	0.0
SB-7	0.17	5	0.0
SB-7	0.20	5	0.0
SB-7	0.20	5	0.0

Total Exceedances	**0**
Percent Exceedance	**0.00%**
Average Exceedance Factor	**0.05**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR CHROMIUM WITH SOUTH BAY SEDIMENT SAMPLES

DRY SEASON DATA

Station ID	Chromium Total (mg/kg)	Objective (220 mg/kg)	Exceedance Factor
STATION1	56	220	0.3
STATION1	76	220	0.3
STATION1	79	220	0.4
STATION1	76	220	0.3
STATION1	64	220	0.3
STATION1	78	220	0.4
STATION1	150	220	0.7
STATION1	77	220	0.4
STATION1	99	220	0.5
STATION2	61	220	0.3
STATION2	80	220	0.4
STATION2	84	220	0.4
STATION2	73	220	0.3
STATION2	62	220	0.3
STATION2	88	220	0.4
STATION2	170	220	0.8
STATION3	47	220	0.2
STATION3	68	220	0.3
STATION3	72	220	0.3
STATION3	80	220	0.4
STATION3	67	220	0.3
STATION3	90	220	0.4
STATION4	45	220	0.2
STATION4	76	220	0.3
STATION4	71	220	0.3
STATION4	123	220	0.6
STATION4	133	220	0.6
STATION4	81	220	0.4
STATION4	128	220	0.6
STATION4	59	220	0.3
STATION4	87	220	0.4
STATION4	117	220	0.5
STATION4	119	220	0.5
STATION4	122	220	0.6
STATION4	145	220	0.7
STATION4	142	220	0.6
STATION4	107	220	0.5
STATION4	114	220	0.5
STATION4	97	220	0.4
STATION4	69	220	0.3
STATION4	119	220	0.5
STATION4	109	220	0.5
STATION4	119	220	0.5
STATION4	88	220	0.4
STATION4	102	220	0.5
STATION4	127	220	0.6
STATION4	103	220	0.5
STATION4	103	220	0.5
STATION4	104	220	0.5
STATION4	104	220	0.5
STATION4	109	220	0.5
STATION4	85	220	0.4
STATION4	112	220	0.5
STATION5	123	220	0.6
STATION5	143	220	0.7
STATION5	140	220	0.6
STATION5	127	220	0.6
STATION5	170	220	0.8
STATION5	127	220	0.6
STATION5	79	220	0.4
STATION5	94	220	0.4
C-6-0	180	220	0.8
C-6-0	173	220	0.8
C-6-0	167	220	0.8
C-6-0	130	220	0.6
C-6-0	113	220	0.5
C-6-0	150	220	0.7
C-6-0	116	220	0.5
C-6-0	112	220	0.5
SB-6	130	220	0.6
SB-6	180	220	0.8
SB-6	137	220	0.6
SB-6	110	220	0.5
SB-6	130	220	0.6
SB-6	140	220	0.6
SB-7	137	220	0.6
SB-7	180	220	0.8
SB-7	157	220	0.7
SB-7	107	220	0.5
SB-7	120	220	0.5
SB-7	147	220	0.7
Total Exceedances			**0**
Percent Exceedance			**0.00%**
Average Exceedance Factor			**0.50**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR CHROMIUM WITH SOUTH BAY SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Chromium Total (mg/kg)	Objective (220 mg/kg)	Exceedance Factor
STATION1	100	220	0.5
STATION1	59	220	0.3
STATION1	64	220	0.3
STATION1	69	220	0.3
STATION1	96	220	0.4
STATION1	76	220	0.3
STATION1	200	220	0.9
STATION1	95	220	0.4
STATION1	66	220	0.3
STATION2	100	220	0.5
STATION2	69	220	0.3
STATION2	69	220	0.3
STATION2	77	220	0.4
STATION2	85	220	0.4
STATION2	80	220	0.4
STATION2	210	220	1.0
STATION3	100	220	0.5
STATION3	72	220	0.3
STATION3	79	220	0.4
STATION3	74	220	0.3
STATION3	91	220	0.4
STATION3	79	220	0.4
STATION4	70	220	0.3
STATION4	66	220	0.3
STATION4	66	220	0.3
STATION4	71	220	0.3
STATION4	129	220	0.6
STATION4	83	220	0.4
STATION4	145	220	0.7
STATION4	72	220	0.3
STATION4	133	220	0.6
STATION4	112	220	0.5
STATION4	94	220	0.4
STATION4	133	220	0.6
STATION4	152	220	0.7
STATION4	147	220	0.7
STATION4	109	220	0.5
STATION4	121	220	0.6
STATION4	115	220	0.5
STATION4	130	220	0.6
STATION4	109	220	0.5
STATION4	118	220	0.5
STATION4	103	220	0.5
STATION4	116	220	0.5
STATION4	120	220	0.5
STATION4	102	220	0.5
STATION4	111	220	0.5
STATION5	137	220	0.6
STATION5	170	220	0.8
STATION5	157	220	0.7
STATION5	160	220	0.7
STATION5	130	220	0.6
STATION5	117	220	0.5
STATION5	123	220	0.6
STATION5	93	220	0.4
STATION5	99	220	0.4
C-6-0	210	220	1.0
C-6-0	157	220	0.7
C-6-0	187	220	0.8
C-6-0	143	220	0.7
C-6-0	140	220	0.6
C-6-0	163	220	0.7
C-6-0	101	220	0.5
C-6-0	106	220	0.5
SB-6	143	220	0.7
SB-6	120	220	0.5
SB-6	167	220	0.8
SB-6	167	220	0.8
SB-6	137	220	0.6
SB-6	137	220	0.6
SB-7	217	220	1.0
SB-7	113	220	0.5
SB-7	167	220	0.8
SB-7	170	220	0.8
SB-7	143	220	0.7
SB-7	140	220	0.6

Total Exceedances	**0**
Percent Exceedance	**0.00%**
Average Exceedance Factor	**0.54**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR COPPER WITH SOUTH BAY SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Copper Total (mg/kg)	Objective (90 mg/kg)	Exceedance Factor
STATION1	29	90	0.3
STATION1	80	90	0.9
STATION1	31	90	0.3
STATION1	33.7	90	0.4
STATION1	12	90	0.1
STATION1	48	90	0.5
STATION1	41	90	0.5
STATION1	32.3	90	0.4
STATION1	46.5	90	0.5
STATION2	30	90	0.3
STATION2	70	90	0.8
STATION2	38	90	0.4
STATION2	30.8	90	0.3
STATION2	12	90	0.1
STATION2	62	90	0.7
STATION2	47	90	0.5
STATION3	26	90	0.3
STATION3	50	90	0.6
STATION3	25	90	0.3
STATION3	30.9	90	0.3
STATION3	13	90	0.1
STATION3	54	90	0.6
STATION4	25	90	0.3
STATION4	90	90	1.0
STATION4	17	90	0.2
STATION4	57	90	0.6
STATION4	53	90	0.6
STATION4	24.5	90	0.3
STATION4	46	90	0.5
STATION4	12	90	0.1
STATION4	51	90	0.6
STATION4	44	90	0.5
STATION4	43	90	0.5
STATION4	50	90	0.6
STATION4	51	90	0.6
STATION4	49	90	0.5
STATION4	43	90	0.5
STATION4	43	90	0.5
STATION4	53	90	0.6
STATION4	35	90	0.4
STATION4	51	90	0.6
STATION4	45	90	0.5
STATION4	47	90	0.5
STATION4	43	90	0.5
STATION4	46	90	0.5
STATION4	51	90	0.6
STATION4	34	90	0.4
STATION4	28	90	0.3
STATION4	30	90	0.3
STATION4	32	90	0.4
STATION4	43	90	0.5
STATION4	33	90	0.4
STATION4	38	90	0.4
STATION5	48.3	90	0.5
STATION5	48.3	90	0.5
STATION5	43.7	90	0.5
STATION5	45	90	0.5
STATION5	48	90	0.5
STATION5	43.3	90	0.5
STATION5	39.8	90	0.4
STATION5	42.2	90	0.5
C-6-0	52.7	90	0.6
C-6-0	51.0	90	0.6
C-6-0	47.7	90	0.5
C-6-0	49.3	90	0.5
C-6-0	48.7	90	0.5
C-6-0	50.7	90	0.6
C-6-0	42	90	0.5
C-6-0	47	90	0.5
SB-6	53.3	90	0.6
SB-6	48	90	0.5
SB-6	41.7	90	0.5
SB-6	44.7	90	0.5
SB-6	53	90	0.6
SB-6	46.7	90	0.5
SB-7	51.7	90	0.6
SB-7	55	90	0.6
SB-7	44	90	0.5
SB-7	45	90	0.5
SB-7	52	90	0.6
SB-7	49	90	0.5

Total Exceedances	**1**
Percent Exceedance	**1.23%**
Average Exceedance Factor	**0.48**

Cu

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR COPPER WITH SOUTH BAY SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Copper Total (mg/kg)	Objective (90 mg/kg)	Exceedance Factor
STATION1	60	90	0.7
STATION1	41.7	90	0.5
STATION1	38	90	0.4
STATION1	43	90	0.5
STATION1	39.3	90	0.4
STATION1	32	90	0.4
STATION1	72	90	0.8
STATION1	45.5	90	0.5
STATION1	41.7	90	0.5
STATION2	70	90	0.8
STATION2	50	90	0.6
STATION2	42	90	0.5
STATION2	51.8	90	0.6
STATION2	44.9	90	0.5
STATION2	37.3	90	0.4
STATION2	74	90	0.8
STATION3	80	90	0.9
STATION3	52.7	90	0.6
STATION3	45	90	0.5
STATION3	59.4	90	0.7
STATION3	50.4	90	0.6
STATION3	38.9	90	0.4
STATION4	60	90	0.7
STATION4	45.9	90	0.5
STATION4	45	90	0.5
STATION4	51.8	90	0.6
STATION4	52	90	0.6
STATION4	44.3	90	0.5
STATION4	59	90	0.7
STATION4	38.2	90	0.4
STATION4	64	90	0.7
STATION4	56	90	0.6
STATION4	44	90	0.5
STATION4	59	90	0.7
STATION4	65	90	0.7
STATION4	61	90	0.7
STATION4	55	90	0.6
STATION4	57	90	0.6
STATION4	49	90	0.5
STATION4	54	90	0.6
STATION4	51	90	0.6
STATION4	48	90	0.5
STATION4	54	90	0.6
STATION4	51	90	0.6
STATION4	52	90	0.6
STATION4	44	90	0.5
STATION4	49	90	0.5

Station ID	Copper Total (mg/kg)	Objective (90 mg/kg)	Exceedance Factor
STATION5	47.3	90	0.5
STATION5	61.3	90	0.7
STATION5	47	90	0.5
STATION5	55	90	0.6
STATION5	42.3	90	0.5
STATION5	61.3	90	0.7
STATION5	44.3	90	0.5
STATION5	46.9	90	0.5
STATION5	54.5	90	0.6
C-6-0	60.0	90	0.7
C-6-0	57.0	90	0.6
C-6-0	63.3	90	0.7
C-6-0	50.7	90	0.6
C-6-0	53.3	90	0.6
C-6-0	60.3	90	0.7
C-6-0	45	90	0.5
C-6-0	45	90	0.5
SB-6	51.3	90	0.6
SB-6	45.7	90	0.5
SB-6	49	90	0.5
SB-6	58	90	0.6
SB-6	45.7	90	0.5
SB-6	47.3	90	0.5
SB-7	77.3	90	0.9
SB-7	41	90	0.5
SB-7	50.7	90	0.6
SB-7	59.7	90	0.7
SB-7	53.3	90	0.6
SB-7	49.3	90	0.5

Total Exceedances	**0**
Percent Exceedance	**0.00%**
Average Exceedance Factor	**0.58**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR LEAD WITH SOUTH BAY SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Lead Total (mg/kg)	Objective (50 mg/kg)	Exceedance Factor
STATION1	25	50	0.5
STATION1	25	50	0.5
STATION1	28	50	0.6
STATION1	16.9	50	0.3
STATION1	33.9	50	0.7
STATION1	25.4	50	0.5
STATION1	29.0	50	0.6
STATION1	18.2	50	0.4
STATION1	24.6	50	0.5
STATION2	26	50	0.5
STATION2	27	50	0.5
STATION2	30.5	50	0.6
STATION2	17.9	50	0.4
STATION2	29.6	50	0.6
STATION2	27.3	50	0.5
STATION2	34	50	0.7
STATION3	25	50	0.5
STATION3	26	50	0.5
STATION3	34.3	50	0.7
STATION3	19.7	50	0.4
STATION3	33.7	50	0.7
STATION3	29.4	50	0.6
STATION4	21	50	0.4
STATION4	26	50	0.5
STATION4	30.3	50	0.6
STATION4	37	50	0.7
STATION4	29	50	0.6
STATION4	12	50	0.2
STATION4	25	50	0.5
STATION4	30.2	50	0.6
STATION4	27.8	50	0.6
STATION4	34	50	0.7
STATION4	30	50	0.6
STATION4	39	50	0.8
STATION4	38	50	0.8
STATION4	33	50	0.7
STATION4	34	50	0.7
STATION4	34	50	0.7
STATION4	<1	50	0.0
STATION4	22	50	0.4
STATION4	34	50	0.7
STATION4	30	50	0.6
STATION4	29	50	0.6
STATION4	38	50	0.8
STATION4	39	50	0.8
STATION4	38	50	0.8
STATION4	38	50	0.8
STATION4	39	50	0.8
STATION4	38	50	0.8
STATION4	38	50	0.8
STATION4	40	50	0.8
STATION4	31	50	0.6
STATION4	36	50	0.7
STATION5	25.0	50	0.5
STATION5	25.9	50	0.5
STATION5	27.0	50	0.5
STATION5	47.0	50	0.9
STATION5	32.3	50	0.6
STATION5	20.7	50	0.4
STATION5	25.3	50	0.5
STATION5	22.9	50	0.5
C-6-0	29.7	50	0.6
C-6-0	27.7	50	0.6
C-6-0	31.3	50	0.6
C-6-0	27.3	50	0.5
C-6-0	23.0	50	0.5
C-6-0	24.7	50	0.5
C-6-0	42	50	0.8
C-6-0	39	50	0.8
SB-6	27	50	0.5
SB-6	25	50	0.5
SB-6	28	50	0.6
SB-6	25.3	50	0.5
SB-6	24.3	50	0.5
SB-6	23.3	50	0.5
SB-7	26.7	50	0.5
SB-7	28	50	0.6
SB-7	28.7	50	0.6
SB-7	26	50	0.5
SB-7	24.7	50	0.5
SB-7	23.7	50	0.5

Total Exceedances	**0**
Percent Exceedance	**0.00%**
Average Exceedance Factor	**0.58**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR LEAD WITH SOUTH BAY SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Lead Total (mg/kg)	Objective (50 mg/kg)	Exceedance Factor
STATION1	35.6	50	0.7
STATION1	21.0	50	0.4
STATION1	28.1	50	0.6
STATION1	27.0	50	0.5
STATION1	28.9	50	0.6
STATION1	21.9	50	0.4
STATION1	32.0	50	0.6
STATION1	35.0	50	0.7
STATION1	15.6	50	0.3
STATION2	32.4	50	0.6
STATION2	23.0	50	0.5
STATION2	30.0	50	0.6
STATION2	31.0	50	0.6
STATION2	31.7	50	0.6
STATION2	24.9	50	0.5
STATION2	30.0	50	0.6
STATION3	34.7	50	0.7
STATION3	24.0	50	0.5
STATION3	34.6	50	0.7
STATION3	33.0	50	0.7
STATION3	36.4	50	0.7
STATION3	29.2	50	0.6
STATION4	30.3	50	0.6
STATION4	22.0	50	0.4
STATION4	31.0	50	0.6
STATION4	29.0	50	0.6
STATION4	32	50	0.6
STATION4	31.6	50	0.6
STATION4	35	50	0.7
STATION4	24.6	50	0.5
STATION4	41	50	0.8
STATION4	<1	50	0.0
STATION4	31	50	0.6
STATION4	46	50	0.9
STATION4	51	50	1.0
STATION4	51	50	1.0
STATION4	48	50	1.0
STATION4	41	50	0.8
STATION4	43	50	0.9
STATION4	49	50	1.0
STATION4	35	50	0.7
STATION4	35	50	0.7
STATION4	40	50	0.8
STATION4	41	50	0.8
STATION4	49	50	1.0
STATION4	37	50	0.7
STATION4	37	50	0.7

Station ID	Lead Total (mg/kg)	Objective (50 mg/kg)	Exceedance Factor
STATION5	27.0	50	0.5
STATION5	29.3	50	0.6
STATION5	24.7	50	0.5
STATION5	26.0	50	0.5
STATION5	25.7	50	0.5
STATION5	29.3	50	0.6
STATION5	20.7	50	0.4
STATION5	41.2	50	0.8
STATION5	23.5	50	0.5
C-6-0	31.0	50	0.6
C-6-0	30.3	50	0.6
C-6-0	35.3	50	0.7
C-6-0	33.0	50	0.7
C-6-0	27.3	50	0.5
C-6-0	29.3	50	0.6
C-6-0	38	50	0.8
C-6-0	36	50	0.7
SB-6	27.3	50	0.5
SB-6	21.3	50	0.4
SB-6	26.3	50	0.5
SB-6	28	50	0.6
SB-6	23	50	0.5
SB-6	29.3	50	0.6
SB-7	42	50	0.8
SB-7	19	50	0.4
SB-7	28.3	50	0.6
SB-7	30	50	0.6
SB-7	24.3	50	0.5
SB-7	31	50	0.6

Total Exceedances	2
Percent Exceedance	2.63%
Average Exceedance Factor	0.63

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR MERCURY WITH SOUTH BAY SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Mercury Total (mg/kg)	Objective (0.35 mg/kg)	Exceedance Factor
STATION1	0.29	0.35	0.8
STATION1	0.42	0.35	1.2
STATION1	0.36	0.35	1.0
STATION1	0.38	0.35	1.1
STATION1	0.38	0.35	1.1
STATION1	0.34	0.35	1.0
STATION1	0.28	0.35	0.8
STATION1	0.47	0.35	1.3
STATION1	0.38	0.35	1.1
STATION2	0.42	0.35	1.2
STATION2	0.41	0.35	1.2
STATION2	0.39	0.35	1.1
STATION2	0.41	0.35	1.2
STATION2	0.35	0.35	1.0
STATION2	0.37	0.35	1.1
STATION2	0.35	0.35	1.0
STATION3	0.43	0.35	1.2
STATION3	0.4	0.35	1.1
STATION3	0.4	0.35	1.1
STATION3	0.44	0.35	1.3
STATION3	0.31	0.35	0.9
STATION3	0.36	0.35	1.0
STATION4	0.45	0.35	1.3
STATION4	0.43	0.35	1.2
STATION4	0.35	0.35	1.0
STATION4	0.37	0.35	1.1
STATION4	0.34	0.35	1.0
STATION4	0.34	0.35	1.0
STATION4	0.33	0.35	0.9
STATION5	0.4	0.35	1.1
STATION5	0.3	0.35	0.9
STATION5	0.4	0.35	1.1
STATION5	0.1	0.35	0.3
STATION5	0.3	0.35	0.9
STATION5	0.3	0.35	0.9
STATION5	0.47	0.35	1.3
STATION5	0.36	0.35	1.0
C-6-0	0.29	0.35	0.8
C-6-0	0.57	0.35	1.6
C-6-0	0.47	0.35	1.3
C-6-0	0.23	0.35	0.6
C-6-0	0.41	0.35	1.2
C-6-0	0.46	0.35	1.3
C-6-0	0.41	0.35	1.2
SB-6	0.35	0.35	1.0
SB-6	0.48	0.35	1.4
SB-6	0.37	0.35	1.1
SB-6	0.17	0.35	0.5
SB-6	0.45	0.35	1.3
SB-6	0.36	0.35	1.0
SB-7	0.41	0.35	1.2
SB-7	0.42	0.35	1.2
SB-7	0.37	0.35	1.1
SB-7	0.18	0.35	0.5
SB-7	0.40	0.35	1.1
SB-7	0.37	0.35	1.1
Total Exceedances			**41**
Percent Exceedance			**73.21%**
Average Exceedance Factor			**1.06**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR MERCURY WITH SOUTH BAY SEDIMENT SAMPLES

WET SEASON DATA

Station ID	Mercury Total (mg/kg)	Objective (0.35 mg/kg)	Exceedance Factor
STATION1	0.35	0.35	1.0
STATION1	0.33	0.35	0.9
STATION1	0.36	0.35	1.0
STATION1	0.34	0.35	1.0
STATION1	0.28	0.35	0.8
STATION1	0.23	0.35	0.7
STATION1	0.48	0.35	1.4
STATION1	0.40	0.35	1.1
STATION1	0.32	0.35	0.9
STATION2	0.38	0.35	1.1
STATION2	0.41	0.35	1.2
STATION2	0.45	0.35	1.3
STATION2	0.39	0.35	1.1
STATION2	0.22	0.35	0.6
STATION2	0.34	0.35	1.0
STATION2	0.55	0.35	1.6
STATION3	0.38	0.35	1.1
STATION3	0.42	0.35	1.2
STATION3	0.42	0.35	1.2
STATION3	0.4	0.35	1.1
STATION3	0.19	0.35	0.5
STATION3	0.38	0.35	1.1
STATION4	0.34	0.35	1.0
STATION4	0.38	0.35	1.1
STATION4	0.4	0.35	1.1
STATION4	0.36	0.35	1.0
STATION4	0.24	0.35	0.7
STATION4	0.36	0.35	1.0
STATION4	0.34	0.35	1.0
STATION4	0.23	0.35	0.7
STATION5	0.1	0.35	0.3
STATION5	0.27	0.35	0.8
STATION5	0.2	0.35	0.6
STATION5	0.2	0.35	0.6
STATION5	0.2	0.35	0.6
STATION5	0.3	0.35	0.9
STATION5	0.2	0.35	0.6
STATION5	0.32	0.35	0.9
STATION5	0.37	0.35	1.1

Station ID	Mercury Total (mg/kg)	Objective (0.35 mg/kg)	Exceedance Factor
C-6-0	0.21	0.35	0.6
C-6-0	0.30	0.35	0.9
C-6-0	0.39	0.35	1.1
C-6-0	0.34	0.35	1.0
C-6-0	0.38	0.35	1.1
C-6-0	0.33	0.35	0.9
C-6-0	0.37	0.35	1.1
C-6-0	0.3	0.35	0.9
SB-6	0.13	0.35	0.4
SB-6	0.34	0.35	1.0
SB-6	0.24	0.35	0.7
SB-6	0.30	0.35	0.9
SB-6	0.22	0.35	0.6
SB-6	0.24	0.35	0.7
SB-7	0.23	0.35	0.7
SB-7	0.37	0.35	1.1
SB-7	0.27	0.35	0.8
SB-7	0.36	0.35	1.0
SB-7	0.27	0.35	0.8
SB-7	0.27	0.35	0.8
Total Exceedances			**24**
Percent Exceedance			**40.68%**
Average Exceedance Factor			**0.90**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR NICKEL WITH SOUTH BAY SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Nickel Total (mg/kg)	Objective (140 mg/kg)	Exceedance Factor
STATION1	65	140	0.5
STATION1	71	140	0.5
STATION1	62	140	0.4
STATION1	60	140	0.4
STATION1	90	140	0.6
STATION1	87	140	0.6
STATION1	78	140	0.6
STATION1	74.3	140	0.5
STATION1	103	140	0.7
STATION1	104.5	140	0.7
STATION2	74	140	0.5
STATION2	70	140	0.5
STATION2	68	140	0.5
STATION2	60	140	0.4
STATION2	80	140	0.6
STATION2	96	140	0.7
STATION2	84	140	0.6
STATION3	40	140	0.3
STATION3	57	140	0.4
STATION3	59	140	0.4
STATION3	60	140	0.4
STATION3	80	140	0.6
STATION3	86	140	0.6
STATION4	50	140	0.4
STATION4	65	140	0.5
STATION4	48	140	0.3
STATION4	60	140	0.4
STATION4	90	140	0.6
STATION4	90	140	0.6
STATION4	86	140	0.6
STATION4	95	140	0.7
STATION4	102	140	0.7
STATION4	85	140	0.6
STATION4	90	140	0.6
STATION4	86	140	0.6
STATION4	85	140	0.6
STATION4	94	140	0.7
STATION4	78	140	0.6
STATION4	85	140	0.6
STATION5	86.3	140	0.6
STATION5	94.7	140	0.7
STATION5	101.7	140	0.7
STATION5	80.7	140	0.6
STATION5	78.3	140	0.6
STATION5	75	140	0.5
STATION5	79.2	140	0.6
STATION5	100	140	0.7

Station ID	Nickel Total (mg/kg)	Objective (140 mg/kg)	Exceedance Factor
C-6-0	117	140	0.8
C-6-0	91	140	0.7
C-6-0	120	140	0.9
C-6-0	117	140	0.8
C-6-0	76	140	0.5
C-6-0	86	140	0.6
C-6-0	97	140	0.7
C-6-0	104	140	0.7
SB-6	90	140	0.6
SB-6	87	140	0.6
SB-6	103	140	0.7
SB-6	78	140	0.6
SB-6	85	140	0.6
SB-6	79	140	0.6
SB-7	90	140	0.6
SB-7	101	140	0.7
SB-7	107	140	0.8
SB-7	82	140	0.6
SB-7	84	140	0.6
SB-7	80	140	0.6

Total Exceedances	0
Percent Exceedance	0.00%
Average Exceedance Factor	0.59

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR NICKEL WITH SOUTH BAY SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Nickel Total (mg/kg)	Objective (140 mg/kg)	Exceedance Factor
STATION1	70	140	0.5
STATION1	52	140	0.4
STATION1	86	140	0.6
STATION1	95	140	0.7
STATION1	105	140	0.8
STATION1	116	140	0.8
STATION1	130	140	0.9
STATION1	91.6	140	0.7
STATION1	48	140	0.3
STATION2	70	140	0.5
STATION2	71	140	0.5
STATION2	82	140	0.6
STATION2	112	140	0.8
STATION2	110	140	0.8
STATION2	117	140	0.8
STATION2	126	140	0.9
STATION3	70	140	0.5
STATION3	70	140	0.5
STATION3	82	140	0.6
STATION3	112	140	0.8
STATION3	119	140	0.9
STATION3	132	140	0.9
STATION4	60	140	0.4
STATION4	63	140	0.5
STATION4	79	140	0.6
STATION4	103	140	0.7
STATION4	113	140	0.8
STATION4	122	140	0.9
STATION4	101	140	0.7
STATION4	91	140	0.7
STATION4	94	140	0.7
STATION4	97	140	0.7
STATION4	97	140	0.7
STATION4	107	140	0.8
STATION4	90	140	0.6
STATION4	92	140	0.7
STATION5	94.7	140	0.7
STATION5	100	140	0.7
STATION5	90.7	140	0.6
STATION5	100	140	0.7
STATION5	77.7	140	0.6
STATION5	100	140	0.7
STATION5	75.3	140	0.5
STATION5	95.8	140	0.7
STATION5	70	140	0.5

Station ID	Nickel Total (mg/kg)	Objective (140 mg/kg)	Exceedance Factor
C-6-0	110	140	0.8
C-6-0	107	140	0.8
C-6-0	117	140	0.8
C-6-0	90	140	0.6
C-6-0	85	140	0.6
C-6-0	95	140	0.7
C-6-0	92	140	0.7
C-6-0	96	140	0.7
SB-6	96	140	0.7
SB-6	74	140	0.5
SB-6	92	140	0.7
SB-6	100	140	0.7
SB-6	80	140	0.6
SB-6	85	140	0.6
SB-7	143	140	1.0
SB-7	69	140	0.5
SB-7	95	140	0.7
SB-7	100	140	0.7
SB-7	86	140	0.6
SB-7	90	140	0.6

Total Exceedances	**1**
Percent Exceedance	**1.54%**
Average Exceedance Factor	**0.67**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR SELENIUM WITH SOUTH BAY SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Selenium Total (mg/kg)	Objective (0.7 mg/kg)	Exceedance Factor
STATION1	<0.1	0.7	0.1
STATION1	0.14	0.7	0.2
STATION1	<0.1	0.7	0.1
STATION1	<0.1	0.7	0.1
STATION1	0.2	0.7	0.3
STATION1	0.2	0.7	0.3
STATION1	0.1	0.7	0.1
STATION1	0.54	0.7	0.8
STATION1	0.35	0.7	0.5
STATION2	<0.1	0.7	0.1
STATION2	0.19	0.7	0.3
STATION2	<0.1	0.7	0.1
STATION2	<0.1	0.7	0.1
STATION2	<0.1	0.7	0.1
STATION2	0.3	0.7	0.4
STATION2	0.1	0.7	0.1
STATION3	<0.1	0.7	0.1
STATION3	0.21	0.7	0.3
STATION3	<0.1	0.7	0.1
STATION3	<0.1	0.7	0.1
STATION3	<0.1	0.7	0.1
STATION3	0.4	0.7	0.6
STATION4	<0.1	0.7	0.1
STATION4	0.26	0.7	0.4
STATION4	<0.1	0.7	0.1
STATION4	<0.1	0.7	0.1
STATION4	0.1	0.7	0.1
STATION4	0.3	0.7	0.4
STATION4	0.23	0.7	0.3
STATION5	0.2	0.7	0.3
STATION5	0.2	0.7	0.3
STATION5	0.2	0.7	0.3
STATION5	0.2	0.7	0.3
STATION5	0.2	0.7	0.3
STATION5	0.2	0.7	0.3
STATION5	1.27	0.7	1.8
STATION5	0.41	0.7	0.6

Station ID	Selenium Total (mg/kg)	Objective (0.7 mg/kg)	Exceedance Factor
C-6-0	0.21	0.7	0.3
C-6-0	0.17	0.7	0.2
C-6-0	0.18	0.7	0.3
C-6-0	0.21	0.7	0.3
C-6-0	0.21	0.7	0.3
C-6-0	0.26	0.7	0.4
C-6-0	0.3	0.7	0.4
SB-6	0.17	0.7	0.2
SB-6	0.15	0.7	0.2
SB-6	0.20	0.7	0.3
SB-6	0.16	0.7	0.2
SB-6	0.23	0.7	0.3
SB-6	0.19	0.7	0.3
SB-7	0.18	0.7	0.3
SB-7	0.15	0.7	0.2
SB-7	0.24	0.7	0.3
SB-7	0.19	0.7	0.3
SB-7	0.22	0.7	0.3
SB-7	0.17	0.7	0.2
Total Exceedances			**1**
Percent Exceedance			**1.79%**
Average Exceedance Factor			**0.30**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR SELENIUM WITH SOUTH BAY SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Selenium Total (mg/kg)	Objective (0.7 mg/kg)	Exceedance Factor
STATION1	0.1	0.7	0.1
STATION1	<0.1	0.7	0.1
STATION1	0.5	0.7	0.7
STATION1	<0.1	0.7	0.1
STATION1	0.2	0.7	0.3
STATION1	0.1	0.7	0.1
STATION1	0.13	0.7	0.2
STATION1	0.23	0.7	0.3
STATION1	0.51	0.7	0.7
STATION2	<0.1	0.7	0.1
STATION2	<0.1	0.7	0.1
STATION2	0.3	0.7	0.4
STATION2	0.2	0.7	0.3
STATION2	0.2	0.7	0.3
STATION2	<0.1	0.7	0.1
STATION2	0.12	0.7	0.2
STATION3	<0.1	0.7	0.1
STATION3	<0.1	0.7	0.1
STATION3	0.2	0.7	0.3
STATION3	<0.1	0.7	0.1
STATION3	0.2	0.7	0.3
STATION3	0.2	0.7	0.3
STATION4	0.1	0.7	0.1
STATION4	<0.1	0.7	0.1
STATION4	0.5	0.7	0.7
STATION4	<0.1	0.7	0.1
STATION4	<0.1	0.7	0.1
STATION4	<0.1	0.7	0.1
STATION4	0.3	0.7	0.4
STATION4	0.35	0.7	0.5
STATION5	0.3	0.7	0.4
STATION5	0.25	0.7	0.4
STATION5	0.2	0.7	0.3
STATION5	0.3	0.7	0.4
STATION5	0.2	0.7	0.3
STATION5	0.3	0.7	0.4
STATION5	0.1	0.7	0.1
STATION5	0.28	0.7	0.4
STATION5	0.72	0.7	1.0

Station ID	Selenium Total (mg/kg)	Objective (0.7 mg/kg)	Exceedance Factor
C-6-0	0.22	0.7	0.3
C-6-0	0.23	0.7	0.3
C-6-0	0.34	0.7	0.5
C-6-0	0.24	0.7	0.3
C-6-0	0.23	0.7	0.3
C-6-0	0.22	0.7	0.3
C-6-0	0.3	0.7	0.4
C-6-0	0.4	0.7	0.6
SB-6	0.28	0.7	0.4
SB-6	0.19	0.7	0.3
SB-6	0.21	0.7	0.3
SB-6	0.24	0.7	0.3
SB-6	0.16	0.7	0.2
SB-6	0.19	0.7	0.3
SB-7	0.39	0.7	0.6
SB-7	0.18	0.7	0.3
SB-7	0.21	0.7	0.3
SB-7	0.26	0.7	0.4
SB-7	0.19	0.7	0.3
SB-7	0.20	0.7	0.3

Total Exceedances	1
Percent Exceedance	1.69%
Average Exceedance Factor	0.32

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR SILVER WITH SOUTH BAY SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Silver Total (mg/kg)	Objective (1.0 mg/kg)	Exceedance Factor
STATION1	0.18	1	0.2
STATION1	0.3	1	0.3
STATION1	0.29	1	0.3
STATION1	0.28	1	0.3
STATION1	0.29	1	0.3
STATION1	0.44	1	0.4
STATION1	1.08	1	1.1
STATION1	0.31	1	0.3
STATION1	0.4	1	0.4
STATION2	0.3	1	0.3
STATION2	0.4	1	0.4
STATION2	0.17	1	0.2
STATION2	0.43	1	0.4
STATION2	0.5	1	0.5
STATION2	0.83	1	0.8
STATION2	1.42	1	1.4
STATION3	0.14	1	0.1
STATION3	0.6	1	0.6
STATION3	1.26	1	1.3
STATION3	0.94	1	0.9
STATION3	1.19	1	1.2
STATION3	2.01	1	2.0
STATION4	0.14	1	0.1
STATION4	0.5	1	0.5
STATION4	0.72	1	0.7
STATION4	0.89	1	0.9
STATION4	0.39	1	0.4
STATION4	0.49	1	0.5
STATION4	<0.3	1	0.3
STATION4	0.56	1	0.6
STATION4	1.25	1	1.3
STATION4	<0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	0.12	1	0.1
STATION4	0.12	1	0.1
STATION4	0.11	1	0.1
STATION4	0.12	1	0.1
STATION4	<0.3	1	0.3
STATION4	1.02	1	1.0
STATION4	0.70	1	0.7
STATION4	0.65	1	0.7
STATION4	0.96	1	1.0

Station ID	Silver Total (mg/kg)	Objective (1.0 mg/kg)	Exceedance Factor
STATION4	1.67	1	1.7
STATION4	0.82	1	0.8
STATION4	0.83	1	0.8
STATION4	0.67	1	0.7
STATION4	0.53	1	0.5
STATION5	2.3	1	2.3
STATION5	2.37	1	2.4
STATION5	2.43	1	2.4
STATION5	1.9	1	1.9
STATION5	1.5	1	1.5
STATION5	1.7	1	1.7
STATION5	0.5	1	0.5
STATION5	0.38	1	0.4
C-6-0	2.97	1	3.0
C-6-0	2.63	1	2.6
C-6-0	3.03	1	3.0
C-6-0	2.97	1	3.0
C-6-0	1.57	1	1.6
C-6-0	1.83	1	1.8
C-6-0	0.54	1	0.5
C-6-0	0.58	1	0.6
SB-6	2.5	1	2.5
SB-6	2.4	1	2.4
SB-6	2.6	1	2.6
SB-6	1..8	1	0.3
SB-6	1.8	1	1.8
SB-6	1.6	1	1.6
SB-7	2.5	1	2.5
SB-7	2.7	1	2.7
SB-7	2.6	1	2.6
SB-7	1.9	1	1.9
SB-7	1.7	1	1.7
SB-7	1.8	1	1.8

Total Exceedances	**31**
Percent Exceedance	**38.27%**
Average Exceedance Factor	**1.03**

Ag

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR SILVER WITH SOUTH BAY SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Silver Total (mg/kg)	Objective (1.0 mg/kg)	Exceedance Factor
STATION1	0.54	1	0.5
STATION1	0.87	1	0.9
STATION1	0.89	1	0.9
STATION1	0.28	1	0.3
STATION1	0.14	1	0.1
STATION1	0.28	1	0.3
STATION1	0.6	1	0.6
STATION1	0.46	1	0.5
STATION1	0.41	1	0.4
STATION2	0.57	1	0.6
STATION2	1.78	1	1.8
STATION2	1.32	1	1.3
STATION2	0.53	1	0.5
STATION2	0.28	1	0.3
STATION2	0.67	1	0.7
STATION2	0.72	1	0.7
STATION3	1.77	1	1.8
STATION3	3.13	1	3.1
STATION3	2.45	1	2.5
STATION3	0.94	1	0.9
STATION3	0.4	1	0.4
STATION3	0.79	1	0.8
STATION4	0.88	1	0.9
STATION4	2.1	1	2.1
STATION4	1.17	1	1.2
STATION4	0.62	1	0.6
STATION4	<0.3	1	0.3
STATION4	0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	0.62	1	0.6
STATION4	<0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	<0.3	1	0.3
STATION4	0.21	1	0.2
STATION4	0.12	1	0.1
STATION4	0.12	1	0.1
STATION4	0.06	1	0.1
STATION4	0.06	1	0.1
STATION4	<0.3	1	0.3
STATION4	0.75	1	0.8
STATION4	1.00	1	1.0
STATION4	0.81	1	0.8
STATION4	0.82	1	0.8

Station ID	Silver Total (mg/kg)	Objective (1.0 mg/kg)	Exceedance Factor
STATION5	2.43	1	2.4
STATION5	2.1	1	2.1
STATION5	2.37	1	2.4
STATION5	2.33	1	2.3
STATION5	1.67	1	1.7
STATION5	2.13	1	2.1
STATION5	1.67	1	1.7
STATION5	0.47	1	0.5
STATION5	0.56	1	0.6
C-6-0	2.70	1	2.7
C-6-0	2.67	1	2.7
C-6-0	2.80	1	2.8
C-6-0	1.93	1	1.9
C-6-0	1.87	1	1.9
C-6-0	2.33	1	2.3
C-6-0	0.51	1	0.5
C-6-0	0.54	1	0.5
SB-6	2.5	1	2.5
SB-6	1.5	1	1.5
SB-6	2.5	1	2.5
SB-6	2.4	1	2.4
SB-6	1.7	1	1.7
SB-6	1.8	1	1.8
SB-7	3.8	1	3.8
SB-7	1.4	1	1.4
SB-7	2.5	1	2.5
SB-7	2.3	1	2.3
SB-7	1.7	1	1.7
SB-7	1.9	1	1.9

Total Exceedances	**33**
Percent Exceedance	**43.42%**
Average Exceedance Factor	**1.18**

Zn

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR ZINC WITH SOUTH BAY SEDIMENT SAMPLES DRY SEASON DATA

Station ID	Zinc Total (mg/kg)	Objective (160 mg/kg)	Exceedance Factor
STATION1	113	160	0.7
STATION1	141	160	0.9
STATION1	120	160	0.8
STATION1	121	160	0.8
STATION1	100	160	0.6
STATION1	110	160	0.7
STATION1	120	160	0.8
STATION1	96.4	160	0.6
STATION1	133	160	0.8
STATION2	114	160	0.7
STATION2	159	160	1.0
STATION2	140	160	0.9
STATION2	128	160	0.8
STATION2	120	160	0.8
STATION2	140	160	0.9
STATION2	130	160	0.8
STATION3	64	160	0.4
STATION3	139	160	0.9
STATION3	140	160	0.9
STATION3	144	160	0.9
STATION3	120	160	0.8
STATION3	130	160	0.8
STATION4	78	160	0.5
STATION4	164	160	1.0
STATION4	130	160	0.8
STATION4	163	160	1.0
STATION4	148	160	0.9
STATION4	126	160	0.8
STATION4	148	160	0.9
STATION4	100	160	0.6
STATION4	130	160	0.8
STATION4	142	160	0.9
STATION4	147	160	0.9
STATION4	155	160	1.0
STATION4	152	160	1.0
STATION4	125	160	0.8
STATION4	103	160	0.6
STATION4	132	160	0.8
STATION4	<1	160	0.0
STATION4	103	160	0.6
STATION4	147	160	0.9
STATION4	127	160	0.8
STATION4	133	160	0.8
STATION4	126	160	0.8
STATION4	138	160	0.9
STATION4	136	160	0.9
STATION4	115	160	0.7
STATION4	116	160	0.7
STATION4	117	160	0.7
STATION4	119	160	0.7
STATION4	136	160	0.9
STATION4	106	160	0.7
STATION4	126	160	0.8
STATION5	106.7	160	0.7
STATION5	126.7	160	0.8
STATION5	130	160	0.8
STATION5	136.7	160	0.9
STATION5	123.3	160	0.8
STATION5	120	160	0.8
STATION5	119.7	160	0.7
STATION5	130.2	160	0.8
C-6-0	170	160	1.1
C-6-0	163	160	1.0
C-6-0	133	160	0.8
C-6-0	170	160	1.1
C-6-0	117	160	0.7
C-6-0	140	160	0.9
C-6-0	137	160	0.9
C-6-0	140	160	0.9
SB-6	117	160	0.7
SB-6	155	160	1.0
SB-6	120	160	0.8
SB-6	140	160	0.9
SB-6	140	160	0.9
SB-6	127	160	0.8
SB-7	120	160	0.8
SB-7	157	160	1.0
SB-7	133	160	0.8
SB-7	147	160	0.9
SB-7	140	160	0.9
SB-7	127	160	0.8

Total Exceedances	**5**
Percent Exceedance	**6.17%**
Average Exceedance Factor	**0.80**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR ZINC WITH SOUTH BAY SEDIMENT SAMPLES WET SEASON DATA

Station ID	Zinc Total (mg/kg)	Objective (160 mg/kg)	Exceedance Factor
STATION1	127	160	0.8
STATION1	160	160	1.0
STATION1	130	160	0.8
STATION1	130	160	0.8
STATION1	119	160	0.7
STATION1	110	160	0.7
STATION1	190	160	1.2
STATION1	136.7	160	0.9
STATION1	91	160	0.6
STATION2	140	160	0.9
STATION2	160	160	1.0
STATION2	140	160	0.9
STATION2	150	160	0.9
STATION2	142	160	0.9
STATION2	121	160	0.8
STATION2	210	160	1.3
STATION3	163	160	1.0
STATION3	160	160	1.0
STATION3	160	160	1.0
STATION3	160	160	1.0
STATION3	156	160	1.0
STATION3	151	160	0.9
STATION4	145	160	0.9
STATION4	160	160	1.0
STATION4	260	160	1.6
STATION4	140	160	0.9
STATION4	147	160	0.9
STATION4	137	160	0.9
STATION4	164	160	1.0
STATION4	124	160	0.8
STATION4	180	160	1.1
STATION4	<1	160	0.0
STATION4	115	160	0.7
STATION4	100	160	0.6
STATION4	167	160	1.0
STATION4	166	160	1.0
STATION4	160	160	1.0
STATION4	194	160	1.2
STATION4	140	160	0.9
STATION4	157	160	1.0
STATION4	143	160	0.9
STATION4	136	160	0.9
STATION4	150	160	0.9
STATION4	148	160	0.9
STATION4	156	160	1.0
STATION4	137	160	0.9
STATION4	134	160	0.8

Station ID	Zinc Total (mg/kg)	Objective (160 mg/kg)	Exceedance Factor
STATION5	120	160	0.8
STATION5	163	160	1.0
STATION5	126.7	160	0.8
STATION5	150	160	0.9
STATION5	120	160	0.8
STATION5	163.3	160	1.0
STATION5	116.7	160	0.7
STATION5	143.6	160	0.9
STATION5	118.1	160	0.7
C-6-0	183	160	1.1
C-6-0	160	160	1.0
C-6-0	170	160	1.1
C-6-0	147	160	0.9
C-6-0	143	160	0.9
C-6-0	167	160	1.0
C-6-0	136	160	0.9
C-6-0	135	160	0.8
SB-6	127	160	0.8
SB-6	123	160	0.8
SB-6	133	160	0.8
SB-6	157	160	1.0
SB-6	123	160	0.8
SB-6	133	160	0.8
SB-7	210	160	1.3
SB-7	110	160	0.7
SB-7	137	160	0.9
SB-7	160	160	1.0
SB-7	143	160	0.9
SB-7	143	160	0.9

Total Exceedances	**24**
Percent Exceedance	**31.58%**
Average Exceedance Factor	**0.91**

COMPARISON OF UNKNOWN CRITERIA FOR HUMAN HEALTH PROTECTION FOR SILVER WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Silver (mg/kg wet wt.)	Objective (? mg/kg wet wt.)	Exceedance Factor
Dumbarton Bridge/Channel Marker 14	Bay Mussel	05/28/80	0.035		#DIV/0!
Dumbarton Bridge/Channel Marker 14	Bay Mussel	11/02/82	0.065		#DIV/0!
Dumbarton Bridge/Channel Marker 14	Bay Mussel	01/22/87	0.139		#DIV/0!
Palo Alto/Channel Marker 8	Bay Mussel	11/02/82	0.035		#DIV/0!
Alviso Slough	California Mussel	01/18/82	0.051		#DIV/0!
Channel Marker 17	California Mussel	01/18/82	0.056		#DIV/0!
Dumbarton Bridge/Channel Marker 14	California Mussel	02/09/81	0.379		#DIV/0!
Dumbarton Bridge/Channel Marker 14	California Mussel	01/18/82	0.210		#DIV/0!
Dumbarton Bridge/Channel Marker 14	California Mussel	11/02/82	0.082		#DIV/0!
Dumbarton Bridge/Channel Marker 14	California Mussel	12/14/83	0.049		#DIV/0!
Dumbarton Bridge/Channel Marker 14	California Mussel	02/12/85	0.074		#DIV/0!
Dumbarton Bridge/Channel Marker 14	California Mussel	01/27/86	0.102		#DIV/0!
Dumbarton Bridge/Channel Marker 14	California Mussel	01/15/88	0.073		#DIV/0!
Dumbarton Bridge/Channel Marker 14	California Mussel	12/29/88	0.049		#DIV/0!
Dumbarton Bridge/Channel Marker 14	California Mussel	01/16/91	0.070		#DIV/0!
Dumbarton Bridge/Channel Marker 14	California Mussel	12/16/91	0.023		#DIV/0!
Newark Slough	California Mussel	01/18/82	0.063		#DIV/0!
Palo Alto Outfall	California Mussel	12/29/88	0.074		#DIV/0!
Palo Alto Outfall	California Mussel	02/09/90	0.170		#DIV/0!
Palo Alto/Channel Marker 8	California Mussel	01/18/82	0.329		#DIV/0!
Palo Alto/Channel Marker 8	California Mussel	01/16/91	0.110		#DIV/0!
Palo Alto/Channel Marker 8	California Mussel	12/16/91	0.057		#DIV/0!
Palo Alto/Channel Marker 8	California Mussel	02/01/93	0.120		#DIV/0!
Palo Alto/Yacht Club	California Mussel	01/18/82	0.226		#DIV/0!
San Jose, Coyote Creek Slough	*Macoma balthica*	2/10/94	1.83		#DIV/0!
San Jose, Coyote Creek Slough	*Macoma balthica*	4/21/94	0.27		#DIV/0!
San Jose, Coyote Creek Slough	*Macoma balthica*	6/17/94	0.195		#DIV/0!
San Jose, Coyote Creek Slough	*Macoma balthica*	9/13/94	0.24		#DIV/0!
Sand Point	*Macoma balthica*	05/15/90	0.3495		#DIV/0!
Sand Point	*Macoma balthica*	6/12/90	0.285		#DIV/0!
Sand Point	*Macoma balthica*	7/24/90	0.489		#DIV/0!
Sand Point	*Macoma balthica*	9/19/90	0.948		#DIV/0!
Sand Point	*Macoma balthica*	10/31/90	1.05		#DIV/0!
Sand Point	*Macoma balthica*	12/17/90	1.35		#DIV/0!
Sand Point	*Macoma balthica*	1/28/91	1.86		#DIV/0!
Sand Point	*Macoma balthica*	3/5/91	0.717		#DIV/0!
Sand Point	*Macoma balthica*	4/8/91	0.651		#DIV/0!
Sand Point	*Macoma balthica*	5/15/91	0.282		#DIV/0!
Sand Point	*Macoma balthica*	6/12/91	0.201		#DIV/0!
Sand Point	*Macoma balthica*	7/16/91	0.3345		#DIV/0!
Sand Point	*Macoma balthica*	8/12/91	0.336		#DIV/0!
Sand Point	*Macoma balthica*	Sep-91	0.234		#DIV/0!
Sand Point	*Macoma balthica*	Nov-91	0.162		#DIV/0!
Sand Point	*Macoma balthica*	12/16/91	0.222		#DIV/0!
Sand Point	*Macoma balthica*	1/15/92	0.2835		#DIV/0!
Sand Point	*Macoma balthica*	2/25/92	0.393		#DIV/0!
Sand Point	*Macoma balthica*	3/23/92	0.3615		#DIV/0!
Sand Point	*Macoma balthica*	5/6/92	0.537		#DIV/0!

COMPARISON OF UNKNOWN CRITERIA FOR HUMAN HEALTH PROTECTION FOR SILVER WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Silver (mg/kg wet wt.)	Objective (? mg/kg wet wt.)	Exceedance Factor
Sand Point	*Macoma balthica*	6/2/92	0.765		#DIV/0!
Sand Point	*Macoma balthica*	7/14/92	0.9105		#DIV/0!
Sand Point	*Macoma balthica*	8/12/92	1.1775		#DIV/0!
Sand Point	*Macoma balthica*	10/23/92	1.323		#DIV/0!
Sand Point	*Macoma balthica*	11/23/92	1.4775		#DIV/0!
Sand Point	*Macoma balthica*	12/21/92	1.611		#DIV/0!
Sand Point	*Macoma balthica*	1/19/93	2.025		#DIV/0!
Sand Point	*Macoma balthica*	2/9/93	2.55		#DIV/0!
Sand Point	*Macoma balthica*	3/16/93	0.9		#DIV/0!
Sand Point	*Macoma balthica*	5/11/93	0.21		#DIV/0!
Sand Point	*Macoma balthica*	Aug-93	0.45		#DIV/0!
Sand Point	*Macoma balthica*	Sep-93	0.54		#DIV/0!
Sand Point	*Macoma balthica*	Oct-93	0.705		#DIV/0!
Sand Point	*Macoma balthica*	Nov-93	0.87		#DIV/0!
Sand Point	*Macoma balthica*	Jan-94	1.035		#DIV/0!
Sand Point	*Macoma balthica*	Feb-94	1.095		#DIV/0!
Sand Point	*Macoma balthica*	Mar-94	0.825		#DIV/0!
Sand Point	*Macoma balthica*	Apr-94	0.405		#DIV/0!
Sand Point	*Macoma balthica*	Jun-94	0.435		#DIV/0!
Sand Point	*Macoma balthica*	Sep-94	0.66		#DIV/0!
Sand Point	*Macoma balthica*	Oct-94	0.9		#DIV/0!
Dumbarton Bridge	Shiner Surf Perch	05/02/94	<0.002		0.00
Fremont Forebay	Striped Bass	05/20/94	<0.002		0.00
Fremont Forebay	Striped Bass	05/20/94	<0.002		0.00
Fremont Forebay	Striped Bass	05/20/94	<0.002		0.00
Fremont Forebay	Striped Bass	05/20/94	<0.002		0.00
Dumbarton Bridge	White Croaker	05/02/94	<0.002		0.00
Dumbarton Bridge	White Croaker	05/02/94	<0.002		0.00
Dumbarton Bridge	White Croaker	05/02/94	<0.002		0.00
		Total Exceedances			**#DIV/0!**
		Percent Exceedance			**#DIV/0!**
		Average Exceedance Factor			**#DIV/0!**

Moisture content of the *Macoma balthica* samples is assumed to be 85%.

COMPARISON OF EPA SCREENING LEVEL CRITERIA FOR HUMAN HEALTH PROTECTION FOR CADMIUM WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Cadmium (mg/kg wet wt.)	Objective (2.33 mg/kg wet wt.)	Exceedance Factor
Dumbarton Bridge/Channel Marker 14	Bay Mussel	05/28/80	1.114	2.33	0.48
Dumbarton Bridge/Channel Marker 14	Bay Mussel	11/02/82	1.292	2.33	0.55
Dumbarton Bridge/Channel Marker 14	Bay Mussel	01/22/87	1.270	2.33	0.55
Palo Alto/Channel Marker 8	Bay Mussel	11/02/82	1.214	2.33	0.52
Alviso Slough	California Mussel	01/18/82	1.881	2.33	0.81
Channel Marker 17	California Mussel	01/18/82	1.590	2.33	0.68
Dumbarton Bridge/Channel Marker 14	California Mussel	02/09/81	2.293	2.33	0.98
Dumbarton Bridge/Channel Marker 14	California Mussel	01/18/82	1.194	2.33	0.51
Dumbarton Bridge/Channel Marker 14	California Mussel	11/02/82	1.215	2.33	0.52
Dumbarton Bridge/Channel Marker 14	California Mussel	12/14/83	1.629	2.33	0.70
Dumbarton Bridge/Channel Marker 14	California Mussel	02/12/85	0.885	2.33	0.38
Dumbarton Bridge/Channel Marker 14	California Mussel	01/27/86	0.820	2.33	0.35
Dumbarton Bridge/Channel Marker 14	California Mussel	01/15/88	1.290	2.33	0.55
Dumbarton Bridge/Channel Marker 14	California Mussel	12/29/88	1.210	2.33	0.52
Dumbarton Bridge/Channel Marker 14	California Mussel	01/16/91	1.500	2.33	0.64
Dumbarton Bridge/Channel Marker 14	California Mussel	12/16/91	1.500	2.33	0.64
Newark Slough	California Mussel	01/18/82	1.626	2.33	0.70
Palo Alto Outfall	California Mussel	12/29/88	1.280	2.33	0.55
Palo Alto Outfall	California Mussel	02/09/90	1.117	2.33	0.48
Palo Alto/Channel Marker 8	California Mussel	01/18/82	1.273	2.33	0.55
Palo Alto/Channel Marker 8	California Mussel	01/16/91	1.300	2.33	0.56
Palo Alto/Channel Marker 8	California Mussel	12/16/91	1.300	2.33	0.56
Palo Alto/Channel Marker 8	California Mussel	02/01/93	1.300	2.33	0.56
Palo Alto/Yacht Club	California Mussel	01/18/82	1.307	2.33	0.56
San Jose, Coyote Creek Slough	*Macoma balthica*	2/10/94	0.08	2.33	0.03
San Jose, Coyote Creek Slough	*Macoma balthica*	4/21/94	0.02	2.33	0.01
San Jose, Coyote Creek Slough	*Macoma balthica*	6/17/94	0.05	2.33	0.02
San Jose, Coyote Creek Slough	*Macoma balthica*	9/13/94	0.05	2.33	0.02
Sand Point	*Macoma balthica*	7/24/90	0.04	2.33	0.02
Sand Point	*Macoma balthica*	9/19/90	0.00	2.33	0.00
Sand Point	*Macoma balthica*	10/31/90	0.07	2.33	0.03
Sand Point	*Macoma balthica*	12/17/90	0.08	2.33	0.03
Sand Point	*Macoma balthica*	1/28/91	0.04	2.33	0.02
Sand Point	*Macoma balthica*	3/5/91	0.04	2.33	0.02
Sand Point	*Macoma balthica*	4/8/91	0.03	2.33	0.01
Sand Point	*Macoma balthica*	5/15/91	0.03	2.33	0.01
Sand Point	*Macoma balthica*	6/12/91	0.02	2.33	0.01
Sand Point	*Macoma balthica*	7/16/91	0.05	2.33	0.02
Sand Point	*Macoma balthica*	8/12/91	0.03	2.33	0.01
Sand Point	*Macoma balthica*	Sep-91	0.03	2.33	0.01
Sand Point	*Macoma balthica*	Nov-91	0.03	2.33	0.01
Sand Point	*Macoma balthica*	12/16/91	0.03	2.33	0.01
Sand Point	*Macoma balthica*	1/15/92	0.02	2.33	0.01
Sand Point	*Macoma balthica*	2/25/92	0.02	2.33	0.01
Sand Point	*Macoma balthica*	3/23/92	0.04	2.33	0.02
Sand Point	*Macoma balthica*	5/6/92	0.04	2.33	0.02
Sand Point	*Macoma balthica*	6/2/92	0.05	2.33	0.02
Sand Point	*Macoma balthica*	7/14/92	0.03	2.33	0.01
Sand Point	*Macoma balthica*	8/12/92	0.06	2.33	0.02
Sand Point	*Macoma balthica*	10/23/92	0.03	2.33	0.01

COMPARISON OF EPA SCREENING LEVEL CRITERIA FOR HUMAN HEALTH PROTECTION FOR CADMIUM WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Cadmium (mg/kg wet wt.)	Objective (2.33 mg/kg wet wt.)	Exceedance Factor
Sand Point	*Macoma balthica*	11/23/92	0.03	2.33	0.01
Sand Point	*Macoma balthica*	12/21/92	0.03	2.33	0.01
Sand Point	*Macoma balthica*	1/19/93	0.06	2.33	0.03
Sand Point	*Macoma balthica*	2/9/93	0.06	2.33	0.03
Sand Point	*Macoma balthica*	3/16/93	0.05	2.33	0.02
Sand Point	*Macoma balthica*	5/11/93	0.04	2.33	0.02
Sand Point	*Macoma balthica*	Aug-93	0.04	2.33	0.02
Sand Point	*Macoma balthica*	Sep-93	0.04	2.33	0.02
Sand Point	*Macoma balthica*	Oct-93	0.05	2.33	0.02
Sand Point	*Macoma balthica*	Nov-93	0.05	2.33	0.02
Sand Point	*Macoma balthica*	Jan-94	0.03	2.33	0.01
Sand Point	*Macoma balthica*	Feb-94	0.02	2.33	0.01
Sand Point	*Macoma balthica*	Mar-94	0.03	2.33	0.01
Sand Point	*Macoma balthica*	Apr-94	0.03	2.33	0.01
Sand Point	*Macoma balthica*	Jun-94	0.09	2.33	0.04
Sand Point	*Macoma balthica*	Sep-94	0.05	2.33	0.02
Sand Point	*Macoma balthica*	Oct-94	0.05	2.33	0.02
Dumbarton Bridge	Shiner Surf Perch	05/02/94	<0.002	2.33	0.00
Fremont Forebay	Striped Bass	05/20/94	<0.002	2.33	0.00
Fremont Forebay	Striped Bass	05/20/94	<0.002	2.33	0.00
Fremont Forebay	Striped Bass	05/20/94	<0.002	2.33	0.00
Fremont Forebay	Striped Bass	05/20/94	<0.002	2.33	0.00
Dumbarton Bridge	White Croaker	05/02/94	0.00303	2.33	0.00
Dumbarton Bridge	White Croaker	05/02/94	0.00361	2.33	0.00
Dumbarton Bridge	White Croaker	05/02/94	0.00248	2.33	0.00
		Total Exceedances			**0**
		Percent Exceedance			**0.00%**
		Average Exceedance Factor			**0.20**

Moisture content of the *Macoma balthica* samples is assumed to be 85%.

COMPARISON OF MEAN INTERNATIONAL STANDARD FOR HUMAN HEALTH PROTECTION FOR CHROMIUM WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Chromium (mg/kg wet wt.)	Objective (1 mg/kg wet wt.)	Exceedance Factor
Dumbarton Bridge/Channel Marker 14	Bay Mussel	05/28/80	0.347	1	0.35
Dumbarton Bridge/Channel Marker 14	Bay Mussel	11/02/82	0.248	1	0.25
Dumbarton Bridge/Channel Marker 14	Bay Mussel	01/22/87	0.520	1	0.52
Palo Alto/Channel Marker 8	Bay Mussel	11/02/82	0.286	1	0.29
Alviso Slough	California Mussel	01/18/82	0.727	1	0.73
Channel Marker 17	California Mussel	01/18/82	0.295	1	0.29
Dumbarton Bridge/Channel Marker 14	California Mussel	02/09/81	0.477	1	0.48
Dumbarton Bridge/Channel Marker 14	California Mussel	01/18/82	0.303	1	0.30
Dumbarton Bridge/Channel Marker 14	California Mussel	11/02/82	0.286	1	0.29
Dumbarton Bridge/Channel Marker 14	California Mussel	12/14/83	0.537	1	0.54
Dumbarton Bridge/Channel Marker 14	California Mussel	02/12/85	0.606	1	0.61
Dumbarton Bridge/Channel Marker 14	California Mussel	01/27/86	0.423	1	0.42
Dumbarton Bridge/Channel Marker 14	California Mussel	01/15/88	0.533	1	0.53
Dumbarton Bridge/Channel Marker 14	California Mussel	12/29/88	0.380	1	0.38
Dumbarton Bridge/Channel Marker 14	California Mussel	01/16/91	0.810	1	0.81
Dumbarton Bridge/Channel Marker 14	California Mussel	12/16/91	0.480	1	0.48
Newark Slough	California Mussel	01/18/82	0.322	1	0.32
Palo Alto Outfall	California Mussel	12/29/88	0.340	1	0.34
Palo Alto Outfall	California Mussel	02/09/90	0.340	1	0.34
Palo Alto/Channel Marker 8	California Mussel	01/18/82	0.321	1	0.32
Palo Alto/Channel Marker 8	California Mussel	01/16/91	0.600	1	0.60
Palo Alto/Channel Marker 8	California Mussel	12/16/91	0.410	1	0.41
Palo Alto/Channel Marker 8	California Mussel	02/01/93	0.390	1	0.39
Palo Alto/Yacht Club	California Mussel	01/18/82	0.327	1	0.33
San Jose, Coyote Creek Slough	*Macoma balthica*	2/10/94	0.585	1	0.59
San Jose, Coyote Creek Slough	*Macoma balthica*	4/21/94	0.885	1	0.89
San Jose, Coyote Creek Slough	*Macoma balthica*	6/17/94	0.24	1	0.24
San Jose, Coyote Creek Slough	*Macoma balthica*	9/13/94	0.72	1	0.72
Sand Point	*Macoma balthica*	7/24/90	0.1203	1	0.12
Sand Point	*Macoma balthica*	9/19/90	0.2355	1	0.24
Sand Point	*Macoma balthica*	10/31/90	0.3285	1	0.33
Sand Point	*Macoma balthica*	12/17/90	0.57	1	0.57
Sand Point	*Macoma balthica*	1/28/91	0.495	1	0.50
Sand Point	*Macoma balthica*	3/5/91	0.177	1	0.18
Sand Point	*Macoma balthica*	4/8/91	0.2565	1	0.26
Sand Point	*Macoma balthica*	5/15/91	0.1695	1	0.17
Sand Point	*Macoma balthica*	6/12/91	0.1128	1	0.11
Sand Point	*Macoma balthica*	7/16/91	0.14745	1	0.15
Sand Point	*Macoma balthica*	8/12/91	0.2565	1	0.26
Sand Point	*Macoma balthica*	Sep-91	0.204	1	0.20
Sand Point	*Macoma balthica*	Nov-91	0.2055	1	0.21
Sand Point	*Macoma balthica*	12/16/91	0.6045	1	0.60
Sand Point	*Macoma balthica*	1/15/92	0.24	1	0.24
Sand Point	*Macoma balthica*	2/25/92	0.174	1	0.17
Sand Point	*Macoma balthica*	3/23/92	0.3675	1	0.37
Sand Point	*Macoma balthica*	5/6/92	0.252	1	0.25
Sand Point	*Macoma balthica*	6/2/92	0.1845	1	0.18
Sand Point	*Macoma balthica*	7/14/92	0.3345	1	0.33

COMPARISON OF MEAN INTERNATIONAL STANDARD FOR HUMAN HEALTH PROTECTION FOR CHROMIUM WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Chromium (mg/kg wet wt.)	Objective (1 mg/kg wet wt.)	Exceedance Factor
Sand Point	*Macoma balthica*	8/12/92	0.2925	1	0.29
Sand Point	*Macoma balthica*	10/23/92	0.2415	1	0.24
Sand Point	*Macoma balthica*	11/23/92	0.573	1	0.57
Sand Point	*Macoma balthica*	12/21/92	0.7335	1	0.73
Sand Point	*Macoma balthica*	1/19/93	0.57	1	0.57
Sand Point	*Macoma balthica*	2/9/93	0.795	1	0.80
Sand Point	*Macoma balthica*	3/16/93	0.57	1	0.57
Sand Point	*Macoma balthica*	5/11/93	0.495	1	0.50
Sand Point	*Macoma balthica*	Aug-93	0.39	1	0.39
Sand Point	*Macoma balthica*	Sep-93	0.255	1	0.26
Sand Point	*Macoma balthica*	Oct-93	0.3	1	0.30
Sand Point	*Macoma balthica*	Nov-93	0.51	1	0.51
Sand Point	*Macoma balthica*	Jan-94	0.825	1	0.83
Sand Point	*Macoma balthica*	Feb-94	0.51	1	0.51
Sand Point	*Macoma balthica*	Mar-94	0.315	1	0.32
Sand Point	*Macoma balthica*	Apr-94	0.99	1	0.99
Sand Point	*Macoma balthica*	Jun-94	0.27	1	0.27
Sand Point	*Macoma balthica*	Sep-94	0.33	1	0.33
Sand Point	*Macoma balthica*	Oct-94	0.315	1	0.32
Dumbarton Bridge	Shiner Surf Perch	05/02/94	4.43	1	4.43
Fremont Forebay	Striped Bass	05/20/94	<0.02	1	0.00
Fremont Forebay	Striped Bass	05/20/94	<0.02	1	0.00
Fremont Forebay	Striped Bass	05/20/94	<0.02	1	0.00
Fremont Forebay	Striped Bass	05/20/94	<0.02	1	0.00
Dumbarton Bridge	White Croaker	05/02/94	9.41	1	9.41
Dumbarton Bridge	White Croaker	05/02/94	<0.02	1	0.00
Dumbarton Bridge	White Croaker	05/02/94	<0.02	1	0.00
		Total Exceedances			**2**
		Percent Exceedance			**2.67%**
		Average Exceedance Factor			**0.55**

Moisture content of the *Macoma balthica* samples is assumed to be 85%.

COMPARISON OF MEAN INTERNATIONAL STANDARD FOR HUMAN HEALTH PROTECTION FOR COPPER WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Copper (mg/kg wet wt.)	Objective (20 mg/kg wet wt.)	Exceedance Factor
Dumbarton Bridge/Channel Marker 14	Bay Mussel	05/28/80	0.936	20	0.05
Dumbarton Bridge/Channel Marker 14	Bay Mussel	11/02/82	1.003	20	0.05
Dumbarton Bridge/Channel Marker 14	Bay Mussel	01/22/87	1.310	20	0.07
Palo Alto/Channel Marker 8	Bay Mussel	11/02/82	0.924	20	0.05
Alviso Slough	California Mussel	01/18/82	1.186	20	0.06
Channel Marker 17	California Mussel	01/18/82	1.053	20	0.05
Dumbarton Bridge/Channel Marker 14	California Mussel	02/09/81	2.302	20	0.12
Dumbarton Bridge/Channel Marker 14	California Mussel	01/18/82	1.004	20	0.05
Dumbarton Bridge/Channel Marker 14	California Mussel	11/02/82	1.174	20	0.06
Dumbarton Bridge/Channel Marker 14	California Mussel	12/14/83	0.981	20	0.05
Dumbarton Bridge/Channel Marker 14	California Mussel	02/12/85	1.003	20	0.05
Dumbarton Bridge/Channel Marker 14	California Mussel	01/27/86	1.152	20	0.06
Dumbarton Bridge/Channel Marker 14	California Mussel	01/15/88	1.910	20	0.10
Dumbarton Bridge/Channel Marker 14	California Mussel	12/29/88	1.220	20	0.06
Dumbarton Bridge/Channel Marker 14	California Mussel	01/16/91	1.300	20	0.06
Dumbarton Bridge/Channel Marker 14	California Mussel	12/16/91	1.400	20	0.07
Newark Slough	California Mussel	01/18/82	0.898	20	0.04
Palo Alto Outfall	California Mussel	12/29/88	1.370	20	0.07
Palo Alto Outfall	California Mussel	02/09/90	1.680	20	0.08
Palo Alto/Channel Marker 8	California Mussel	01/18/82	1.358	20	0.07
Palo Alto/Channel Marker 8	California Mussel	01/16/91	1.800	20	0.09
Palo Alto/Channel Marker 8	California Mussel	12/16/91	1.900	20	0.09
Palo Alto/Channel Marker 8	California Mussel	02/01/93	1.900	20	0.09
Palo Alto/Yacht Club	California Mussel	01/18/82	1.226	20	0.06
San Jose, Coyote Creek Slough	*Macoma balthica*	2/10/94	18.9	20	0.95
San Jose, Coyote Creek Slough	*Macoma balthica*	4/21/94	4.65	20	0.23
San Jose, Coyote Creek Slough	*Macoma balthica*	6/17/94	4.5	20	0.23
San Jose, Coyote Creek Slough	*Macoma balthica*	9/13/94	5.1	20	0.26
Sand Point	*Macoma balthica*	5/15/90	2.61	20	0.13
Sand Point	*Macoma balthica*	6/12/90	2.97	20	0.15
Sand Point	*Macoma balthica*	7/24/90	4.005	20	0.20
Sand Point	*Macoma balthica*	9/19/90	3.75	20	0.19
Sand Point	*Macoma balthica*	10/31/90	6.81	20	0.34
Sand Point	*Macoma balthica*	12/17/90	6.03	20	0.30
Sand Point	*Macoma balthica*	1/28/91	8.7	20	0.44
Sand Point	*Macoma balthica*	3/5/91	3.795	20	0.19
Sand Point	*Macoma balthica*	4/8/91	4.455	20	0.22
Sand Point	*Macoma balthica*	5/15/91	2.745	20	0.14
Sand Point	*Macoma balthica*	6/12/91	2.82	20	0.14
Sand Point	*Macoma balthica*	7/16/91	3.69	20	0.18
Sand Point	*Macoma balthica*	8/12/91	3	20	0.15
Sand Point	*Macoma balthica*	Sep-91	2.64	20	0.13
Sand Point	*Macoma balthica*	Nov-91	2.07	20	0.10
Sand Point	*Macoma balthica*	12/16/91	2.235	20	0.11
Sand Point	*Macoma balthica*	1/15/92	2.604	20	0.13
Sand Point	*Macoma balthica*	2/25/92	3.453	20	0.17
Sand Point	*Macoma balthica*	3/23/92	3.753	20	0.19
Sand Point	*Macoma balthica*	5/6/92	5.9355	20	0.30

COMPARISON OF MEAN INTERNATIONAL STANDARD FOR HUMAN HEALTH PROTECTION FOR COPPER WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Copper (mg/kg wet wt.)	Objective (20 mg/kg wet wt.)	Exceedance Factor
Sand Point	*Macoma balthica*	6/2/92	6.27	20	0.31
Sand Point	*Macoma balthica*	7/14/92	6.735	20	0.34
Sand Point	*Macoma balthica*	8/12/92	8.28	20	0.41
Sand Point	*Macoma balthica*	10/23/92	11.925	20	0.60
Sand Point	*Macoma balthica*	11/23/92	9.72	20	0.49
Sand Point	*Macoma balthica*	12/21/92	10.155	20	0.51
Sand Point	*Macoma balthica*	1/19/93	10.05	20	0.50
Sand Point	*Macoma balthica*	2/9/93	12.45	20	0.62
Sand Point	*Macoma balthica*	3/16/93	7.05	20	0.35
Sand Point	*Macoma balthica*	5/11/93	2.4	20	0.12
Sand Point	*Macoma balthica*	Aug-93	8.55	20	0.43
Sand Point	*Macoma balthica*	Sep-93	7.65	20	0.38
Sand Point	*Macoma balthica*	Oct-93	12.45	20	0.62
Sand Point	*Macoma balthica*	Nov-93	11.25	20	0.56
Sand Point	*Macoma balthica*	Jan-94	11.55	20	0.58
Sand Point	*Macoma balthica*	Feb-94	10.35	20	0.52
Sand Point	*Macoma balthica*	Mar-94	6.6	20	0.33
Sand Point	*Macoma balthica*	Apr-94	4.65	20	0.23
Sand Point	*Macoma balthica*	Jun-94	5.85	20	0.29
Sand Point	*Macoma balthica*	Sep-94	9.3	20	0.47
Sand Point	*Macoma balthica*	Oct-94	9.9	20	0.50
Dumbarton Bridge	Shiner Surf Perch	05/02/94	0.332	20	0.02
Fremont Forebay	Striped Bass	05/20/94	0.305	20	0.02
Fremont Forebay	Striped Bass	05/20/94	0.321	20	0.02
Fremont Forebay	Striped Bass	05/20/94	0.268	20	0.01
Fremont Forebay	Striped Bass	05/20/94	0.205	20	0.01
Dumbarton Bridge	White Croaker	05/02/94	0.0536	20	0.00
Dumbarton Bridge	White Croaker	05/02/94	0.233	20	0.01
Dumbarton Bridge	White Croaker	05/02/94	0.258	20	0.01
		Total Exceedances			**0**
		Percent Exceedance			**0.00%**
		Average Exceedance Factor			**0.21**

Moisture content of the *Macoma balthica* samples is assumed to be 85%.

COMPARISON OF EPA SCREENING LEVEL CRITERIA FOR HUMAN HEALTH PROTECTION FOR MERCURY WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Mercury (mg/kg wet wt.)	Objective (0.14 mg/kg wet wt.)	Exceedance Factor
Dumbarton Bridge/Channel Marker 14	Bay Mussel	05/28/80	0.041	0.14	0.29
Dumbarton Bridge/Channel Marker 14	Bay Mussel	11/02/82	0.061	0.14	0.44
Dumbarton Bridge/Channel Marker 14	Bay Mussel	01/22/87	0.109	0.14	0.78
Palo Alto/Channel Marker 8	Bay Mussel	11/02/82	0.050	0.14	0.36
Alviso Slough	California Mussel	01/18/82	ND	0.14	0.00
Channel Marker 17	California Mussel	01/18/82	ND	0.14	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	02/09/81	0.082	0.14	0.59
Dumbarton Bridge/Channel Marker 14	California Mussel	01/18/82	0.023	0.14	0.16
Dumbarton Bridge/Channel Marker 14	California Mussel	11/02/82	0.044	0.14	0.31
Dumbarton Bridge/Channel Marker 14	California Mussel	12/14/83	0.070	0.14	0.50
Dumbarton Bridge/Channel Marker 14	California Mussel	02/12/85	0.053	0.14	0.38
Dumbarton Bridge/Channel Marker 14	California Mussel	01/27/86	0.070	0.14	0.50
Dumbarton Bridge/Channel Marker 14	California Mussel	01/15/88	0.046	0.14	0.33
Dumbarton Bridge/Channel Marker 14	California Mussel	12/29/88	0.068	0.14	0.49
Dumbarton Bridge/Channel Marker 14	California Mussel	01/16/91	0.050	0.14	0.36
Dumbarton Bridge/Channel Marker 14	California Mussel	12/16/91	0.030	0.14	0.21
Newark Slough	California Mussel	01/18/82	ND	0.14	0.00
Palo Alto Outfall	California Mussel	12/29/88	0.064	0.14	0.46
Palo Alto Outfall	California Mussel	02/09/90	0.092	0.14	0.65
Palo Alto/Channel Marker 8	California Mussel	01/18/82	ND	0.14	0.00
Palo Alto/Channel Marker 8	California Mussel	01/16/91	0.050	0.14	0.36
Palo Alto/Channel Marker 8	California Mussel	12/16/91	0.020	0.14	0.14
Palo Alto/Channel Marker 8	California Mussel	02/01/93	0.033	0.14	0.24
Palo Alto/Yacht Club	California Mussel	01/18/82	ND	0.14	0.00
San Jose, Coyote Creek Slough	*Macoma balthica*	2/10/94	0.051	0.14	0.36
San Jose, Coyote Creek Slough	*Macoma balthica*	4/21/94	0.03	0.14	0.21
San Jose, Coyote Creek Slough	*Macoma balthica*	9/13/94	0.0645	0.14	0.46
Sand Point	*Macoma balthica*	Feb-94	0.0495	0.14	0.35
Sand Point	*Macoma balthica*	Apr-94	0.0345	0.14	0.25
Sand Point	*Macoma balthica*	Sep-94	0.0795	0.14	0.57
Dumbarton Bridge	Shiner Surf Perch	05/02/94	0.124	0.14	0.89
Fremont Forebay	Striped Bass	05/20/94	0.150	0.14	1.07
Fremont Forebay	Striped Bass	05/20/94	0.286	0.14	2.04
Fremont Forebay	Striped Bass	05/20/94	0.232	0.14	1.66
Fremont Forebay	Striped Bass	05/20/94	0.245	0.14	1.75
Dumbarton Bridge	White Croaker	05/02/94	0.175	0.14	1.25
Dumbarton Bridge	White Croaker	05/02/94	0.113	0.14	0.81
Dumbarton Bridge	White Croaker	05/02/94	0.0825	0.14	0.59
		Total Exceedances			**5**
		Percent Exceedance			**13.16%**
		Average Exceedance Factor			**0.52**

Moisture content of the *Macoma balthica* samples is assumed to be 85%.

COMPARISON OF FDA GUIDANCE DOCUMENT CRITERIA FOR HUMAN HEALTH PROTECTION FOR NICKEL WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Nickel (mg/kg wet wt.)	Objective (80 mg/kg wet wt.)	Exceedance Factor
Dumbarton Bridge/Channel Marker 14	Bay Mussel	05/28/80	0.984	80	0.01
Dumbarton Bridge/Channel Marker 14	Bay Mussel	11/02/82	ND	80	0.00
Dumbarton Bridge/Channel Marker 14	Bay Mussel	01/22/87	ND	80	0.00
Palo Alto/Channel Marker 8	Bay Mussel	11/02/82	ND	80	0.00
Alviso Slough	California Mussel	01/18/82	ND	80	0.00
Channel Marker 17	California Mussel	01/18/82	ND	80	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	02/09/81	ND	80	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	01/18/82	ND	80	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	11/02/82	ND	80	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	12/14/83	ND	80	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	02/12/85	ND	80	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	01/27/86	ND	80	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	01/15/88	ND	80	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	12/29/88	ND	80	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	01/16/91	ND	80	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	12/16/91	0.400	80	0.01
Newark Slough	California Mussel	01/18/82	ND	80	0.00
Palo Alto Outfall	California Mussel	12/29/88	ND	80	0.00
Palo Alto Outfall	California Mussel	02/09/90	ND	80	0.00
Palo Alto/Channel Marker 8	California Mussel	01/18/82	ND	80	0.00
Palo Alto/Channel Marker 8	California Mussel	01/16/91	ND	80	0.00
Palo Alto/Channel Marker 8	California Mussel	12/16/91	0.500	80	0.01
Palo Alto/Channel Marker 8	California Mussel	02/01/93	0.410	80	0.01
Palo Alto/Yacht Club	California Mussel	01/18/82	ND	80	0.00
San Jose, Coyote Creek Slough	*Macoma balthica*	2/10/94	0.98	80	0.01
San Jose, Coyote Creek Slough	*Macoma balthica*	4/21/94	1.17	80	0.01
San Jose, Coyote Creek Slough	*Macoma balthica*	6/17/94	0.65	80	0.01
San Jose, Coyote Creek Slough	*Macoma balthica*	9/13/94	1.14	80	0.01
Sand Point	*Macoma balthica*	7/24/90	0.83	80	0.01
Sand Point	*Macoma balthica*	9/19/90	0.95	80	0.01
Sand Point	*Macoma balthica*	10/31/90	0.85	80	0.01
Sand Point	*Macoma balthica*	12/17/90	1.07	80	0.01
Sand Point	*Macoma balthica*	1/28/91	1.14	80	0.01
Sand Point	*Macoma balthica*	3/5/91	0.60	80	0.01
Sand Point	*Macoma balthica*	4/8/91	0.68	80	0.01
Sand Point	*Macoma balthica*	5/15/91	0.52	80	0.01
Sand Point	*Macoma balthica*	6/12/91	0.46	80	0.01
Sand Point	*Macoma balthica*	7/16/91	0.63	80	0.01
Sand Point	*Macoma balthica*	8/12/91	0.57	80	0.01
Sand Point	*Macoma balthica*	Sep-91	0.63	80	0.01
Sand Point	*Macoma balthica*	Nov-91	0.53	80	0.01
Sand Point	*Macoma balthica*	12/16/91	0.65	80	0.01
Sand Point	*Macoma balthica*	1/15/92	0.65	80	0.01
Sand Point	*Macoma balthica*	2/25/92	0.61	80	0.01
Sand Point	*Macoma balthica*	3/23/92	0.84	80	0.01
Sand Point	*Macoma balthica*	5/6/92	0.71	80	0.01
Sand Point	*Macoma balthica*	6/2/92	0.81	80	0.01
Sand Point	*Macoma balthica*	7/14/92	0.65	80	0.01

COMPARISON OF FDA GUIDANCE DOCUMENT CRITERIA FOR HUMAN HEALTH PROTECTION FOR NICKEL WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Nickel (mg/kg wet wt.)	Objective (80 mg/kg wet wt.)	Exceedance Factor
Sand Point	*Macoma balthica*	8/12/92	0.81	80	0.01
Sand Point	*Macoma balthica*	10/23/92	0.89	80	0.01
Sand Point	*Macoma balthica*	11/23/92	1.18	80	0.01
Sand Point	*Macoma balthica*	12/21/92	1.31	80	0.02
Sand Point	*Macoma balthica*	1/19/93	1.13	80	0.01
Sand Point	*Macoma balthica*	2/9/93	1.52	80	0.02
Sand Point	*Macoma balthica*	3/16/93	1.02	80	0.01
Sand Point	*Macoma balthica*	5/11/93	0.71	80	0.01
Sand Point	*Macoma balthica*	Aug-93	0.90	80	0.01
Sand Point	*Macoma balthica*	Sep-93	0.66	80	0.01
Sand Point	*Macoma balthica*	Oct-93	0.81	80	0.01
Sand Point	*Macoma balthica*	Nov-93	0.98	80	0.01
Sand Point	*Macoma balthica*	Jan-94	1.14	80	0.01
Sand Point	*Macoma balthica*	Feb-94	0.92	80	0.01
Sand Point	*Macoma balthica*	Mar-94	0.74	80	0.01
Sand Point	*Macoma balthica*	Apr-94	1.13	80	0.01
Sand Point	*Macoma balthica*	Jun-94	0.68	80	0.01
Sand Point	*Macoma balthica*	Sep-94	0.87	80	0.01
Sand Point	*Macoma balthica*	Oct-94	0.86	80	0.01
Dumbarton Bridge	Shiner Surf Perch	05/02/94	NA	80	0.00
Fremont Forebay	Striped Bass	05/20/94	NA	80	0.00
Fremont Forebay	Striped Bass	05/20/94	NA	80	0.00
Fremont Forebay	Striped Bass	05/20/94	NA	80	0.00
Fremont Forebay	Striped Bass	05/20/94	NA	80	0.00
Dumbarton Bridge	White Croaker	05/02/94	NA	80	0.00
Dumbarton Bridge	White Croaker	05/02/94	NA	80	0.00
Dumbarton Bridge	White Croaker	05/02/94	NA	80	0.00
		Total Exceedances			**0**
		Percent Exceedance			**0.00%**
		Average Exceedance Factor			**0.01**

Moisture content of the *Macoma balthica* samples is assumed to be 85%.

COMPARISON OF FISH AND WILDLIFE LEVEL OF CONCERN FOR THE PROTECTION OF BIRDS FOR SELENIUM WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Selenium (mg/kg dry wt.)	Objective (3 mg/kg dry wt.)	Exceedance Factor
Dumbarton Bridge/Channel Marker 14	Bay Mussel	05/28/80	ND	3	0.00
Dumbarton Bridge/Channel Marker 14	Bay Mussel	11/02/82	ND	3	0.00
Dumbarton Bridge/Channel Marker 14	Bay Mussel	01/22/87	ND	3	0.00
Palo Alto/Channel Marker 8	Bay Mussel	11/02/82	ND	3	0.00
Alviso Slough	California Mussel	01/18/82	ND	3	0.00
Channel Marker 17	California Mussel	01/18/82	ND	3	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	02/09/81	ND	3	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	01/18/82	1.47	3	0.49
Dumbarton Bridge/Channel Marker 14	California Mussel	11/02/82	ND	3	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	12/14/83	ND	3	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	02/12/85	ND	3	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	01/27/86	4.38	3	1.46
Dumbarton Bridge/Channel Marker 14	California Mussel	01/15/88	ND	3	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	12/29/88	ND	3	0.00
Dumbarton Bridge/Channel Marker 14	California Mussel	01/16/91	1.667	3	0.56
Dumbarton Bridge/Channel Marker 14	California Mussel	12/16/91	2.800	3	0.93
Newark Slough	California Mussel	01/18/82	ND	3	0.00
Palo Alto Outfall	California Mussel	12/29/88	ND	3	0.00
Palo Alto Outfall	California Mussel	02/09/90	ND	3	0.00
Palo Alto/Channel Marker 8	California Mussel	01/18/82	ND	3	0.00
Palo Alto/Channel Marker 8	California Mussel	01/16/91	2.467	3	0.82
Palo Alto/Channel Marker 8	California Mussel	12/16/91	2.600	3	0.87
Palo Alto/Channel Marker 8	California Mussel	02/01/93	8.000	3	2.67
Palo Alto/Yacht Club	California Mussel	01/18/82	ND	3	0.00
San Jose, Coyote Creek Slough	*Macoma balthica*	2/10/94	4.2	3	1.40
San Jose, Coyote Creek Slough	*Macoma balthica*	4/21/94	1.8	3	0.60
San Jose, Coyote Creek Slough	*Macoma balthica*	9/13/94	3.9	3	1.30
Sand Point	*Macoma balthica*	Feb-94	3.2	3	1.07
Sand Point	*Macoma balthica*	Apr-94	1.9	3	0.63
Sand Point	*Macoma balthica*	Sep-94	3.9	3	1.30
Dumbarton Bridge	Shiner Surf Perch	05/02/94	1.131	3	0.38
Fremont Forebay	Striped Bass	05/20/94	2.125	3	0.71
Fremont Forebay	Striped Bass	05/20/94	1.772	3	0.59
Fremont Forebay	Striped Bass	05/20/94	2.207	3	0.74
Fremont Forebay	Striped Bass	05/20/94	1.782	3	0.59
Dumbarton Bridge	White Croaker	05/02/94	1.059	3	0.35
Dumbarton Bridge	White Croaker	05/02/94	1.058	3	0.35
Dumbarton Bridge	White Croaker	05/02/94	1.371	3	0.46
		Total Exceedances			**6**
		Percent Exceedance			**15.79%**
		Average Exceedance Factor			**0.48**

Moisture content of California mussels collected after 1986 is assumed to be 85%.

COMPARISON OF FDA GUIDANCE DOCUMENT CRITERIA FOR HUMAN HEALTH PROTECTION FOR LEAD WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Lead (mg/kg wet wt.)	Objective (0.8 mg/kg wet wt.)	Exceedance Factor
Dumbarton Bridge/Channel Marker 14	Bay Mussel	05/28/80	0.208	0.8	0.26
Dumbarton Bridge/Channel Marker 14	Bay Mussel	11/02/82	0.122	0.8	0.15
Dumbarton Bridge/Channel Marker 14	Bay Mussel	01/22/87	0.930	0.8	1.16
Palo Alto/Channel Marker 8	Bay Mussel	11/02/82	0.163	0.8	0.20
Alviso Slough	California Mussel	01/18/82	0.602	0.8	0.75
Channel Marker 17	California Mussel	01/18/82	0.316	0.8	0.40
Dumbarton Bridge/Channel Marker 14	California Mussel	02/09/81	0.305	0.8	0.38
Dumbarton Bridge/Channel Marker 14	California Mussel	01/18/82	0.202	0.8	0.25
Dumbarton Bridge/Channel Marker 14	California Mussel	11/02/82	0.204	0.8	0.25
Dumbarton Bridge/Channel Marker 14	California Mussel	12/14/83	0.322	0.8	0.40
Dumbarton Bridge/Channel Marker 14	California Mussel	02/12/85	0.366	0.8	0.46
Dumbarton Bridge/Channel Marker 14	California Mussel	01/27/86	0.342	0.8	0.43
Dumbarton Bridge/Channel Marker 14	California Mussel	01/15/88	0.210	0.8	0.26
Dumbarton Bridge/Channel Marker 14	California Mussel	12/29/88	0.210	0.8	0.26
Dumbarton Bridge/Channel Marker 14	California Mussel	01/16/91	0.340	0.8	0.43
Dumbarton Bridge/Channel Marker 14	California Mussel	12/16/91	0.230	0.8	0.29
Newark Slough	California Mussel	01/18/82	0.339	0.8	0.42
Palo Alto Outfall	California Mussel	12/29/88	0.170	0.8	0.21
Palo Alto Outfall	California Mussel	02/09/90	0.222	0.8	0.28
Palo Alto/Channel Marker 8	California Mussel	01/18/82	0.354	0.8	0.44
Palo Alto/Channel Marker 8	California Mussel	01/16/91	0.350	0.8	0.44
Palo Alto/Channel Marker 8	California Mussel	12/16/91	0.280	0.8	0.35
Palo Alto/Channel Marker 8	California Mussel	02/01/93	0.310	0.8	0.39
Palo Alto/Yacht Club	California Mussel	01/18/82	0.395	0.8	0.49
San Jose, Coyote Creek Slough	*Macoma balthica*	2/10/94	0.72	0.8	0.90
San Jose, Coyote Creek Slough	*Macoma balthica*	4/21/94	0.615	0.8	0.77
San Jose, Coyote Creek Slough	*Macoma balthica*	6/17/94	0.255	0.8	0.32
San Jose, Coyote Creek Slough	*Macoma balthica*	9/13/94	0.66	0.8	0.83
Sand Point	*Macoma balthica*	7/24/90	0.17	0.8	0.21
Sand Point	*Macoma balthica*	9/19/90	0.004	0.8	0.03
Sand Point	*Macoma balthica*	10/31/90	0.4095	0.8	0.51
Sand Point	*Macoma balthica*	12/17/90	0.525	0.8	0.66
Sand Point	*Macoma balthica*	1/28/91	0.51	0.8	0.64
Sand Point	*Macoma balthica*	3/5/91	0.198	0.8	0.25
Sand Point	*Macoma balthica*	4/8/91	0.246	0.8	0.31
Sand Point	*Macoma balthica*	5/15/91	0.192	0.8	0.24
Sand Point	*Macoma balthica*	6/12/91	0.291	0.8	0.36
Sand Point	*Macoma balthica*	7/16/91	0.174	0.8	0.22
Sand Point	*Macoma balthica*	8/12/91	0.246	0.8	0.31
Sand Point	*Macoma balthica*	Sep-91	0.27	0.8	0.34
Sand Point	*Macoma balthica*	Nov-91	0.195	0.8	0.24
Sand Point	*Macoma balthica*	12/16/91	0.2925	0.8	0.37
Sand Point	*Macoma balthica*	1/15/92	0.2985	0.8	0.37
Sand Point	*Macoma balthica*	2/25/92	0.249	0.8	0.31
Sand Point	*Macoma balthica*	3/23/92	0.3495	0.8	0.44
Sand Point	*Macoma balthica*	5/6/92	0.2655	0.8	0.33
Sand Point	*Macoma balthica*	6/2/92	0.318	0.8	0.40
Sand Point	*Macoma balthica*	7/14/92	0.2475	0.8	0.31

COMPARISON OF FDA GUIDANCE DOCUMENT CRITERIA FOR HUMAN HEALTH PROTECTION FOR LEAD WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Lead (mg/kg wet wt.)	Objective (0.8 mg/kg wet wt.)	Exceedance Factor
Sand Point	*Macoma balthica*	8/12/92	0.264	0.8	0.33
Sand Point	*Macoma balthica*	10/23/92	0.204	0.8	0.26
Sand Point	*Macoma balthica*	11/23/92	0.4515	0.8	0.56
Sand Point	*Macoma balthica*	12/21/92	0.513	0.8	0.64
Sand Point	*Macoma balthica*	1/19/93	0.39	0.8	0.49
Sand Point	*Macoma balthica*	2/9/93	0.435	0.8	0.54
Sand Point	*Macoma balthica*	3/16/93	0.255	0.8	0.32
Sand Point	*Macoma balthica*	5/11/93	0.33	0.8	0.41
Sand Point	*Macoma balthica*	Aug-93	0.39	0.8	0.49
Sand Point	*Macoma balthica*	Sep-93	0.36	0.8	0.45
Sand Point	*Macoma balthica*	Oct-93	0.495	0.8	0.62
Sand Point	*Macoma balthica*	Nov-93	0.54	0.8	0.68
Sand Point	*Macoma balthica*	Jan-94	0.615	0.8	0.77
Sand Point	*Macoma balthica*	Feb-94	0.465	0.8	0.58
Sand Point	*Macoma balthica*	Mar-94	0.315	0.8	0.39
Sand Point	*Macoma balthica*	Apr-94	0.645	0.8	0.81
Sand Point	*Macoma balthica*	Jun-94	0.33	0.8	0.41
Sand Point	*Macoma balthica*	Sep-94	0.39	0.8	0.49
Sand Point	*Macoma balthica*	Oct-94	0.345	0.8	0.43
Dumbarton Bridge	Shiner Surf Perch	05/02/94	0.021	0.8	0.03
Fremont Forebay	Striped Bass	05/20/94	<0.02	0.8	0.00
Fremont Forebay	Striped Bass	05/20/94	<0.02	0.8	0.00
Fremont Forebay	Striped Bass	05/20/94	<0.02	0.8	0.00
Fremont Forebay	Striped Bass	05/20/94	<0.02	0.8	0.00
Dumbarton Bridge	White Croaker	05/02/94	<0.02	0.8	0.00
Dumbarton Bridge	White Croaker	05/02/94	<0.02	0.8	0.00
Dumbarton Bridge	White Croaker	05/02/94	<0.02	0.8	0.00
		Total Exceedances			**1**
		Percent Exceedance			**1.33%**
		Average Exceedance Factor			**0.38**

Moisture content of the *Macoma balthica* samples is assumed to be 85%.

COMPARISON OF AUSTRALIAN CRITERIA FOR HUMAN HEALTH PROTECTION FOR ZINC WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Zinc (mg/kg wet wt.)	Objective (40 mg/kg wet wt.)	Exceedance Factor
Dumbarton Bridge/Channel Marker 14	Bay Mussel	05/28/80	10.617	40	0.27
Dumbarton Bridge/Channel Marker 14	Bay Mussel	11/02/82	19.603	40	0.49
Dumbarton Bridge/Channel Marker 14	Bay Mussel	01/22/87	13.080	40	0.33
Palo Alto/Channel Marker 8	Bay Mussel	11/02/82	15.233	40	0.38
Alviso Slough	California Mussel	01/18/82	33.962	40	0.85
Channel Marker 17	California Mussel	01/18/82	32.933	40	0.82
Dumbarton Bridge/Channel Marker 14	California Mussel	02/09/81	28.600	40	0.72
Dumbarton Bridge/Channel Marker 14	California Mussel	01/18/82	25.007	40	0.63
Dumbarton Bridge/Channel Marker 14	California Mussel	11/02/82	26.520	40	0.66
Dumbarton Bridge/Channel Marker 14	California Mussel	12/14/83	34.583	40	0.86
Dumbarton Bridge/Channel Marker 14	California Mussel	02/12/85	28.930	40	0.72
Dumbarton Bridge/Channel Marker 14	California Mussel	01/27/86	21.727	40	0.54
Dumbarton Bridge/Channel Marker 14	California Mussel	01/15/88	23.870	40	0.60
Dumbarton Bridge/Channel Marker 14	California Mussel	12/29/88	25.370	40	0.63
Dumbarton Bridge/Channel Marker 14	California Mussel	01/16/91	33.000	40	0.83
Dumbarton Bridge/Channel Marker 14	California Mussel	12/16/91	28.000	40	0.70
Newark Slough	California Mussel	01/18/82	30.820	40	0.77
Palo Alto Outfall	California Mussel	12/29/88	22.770	40	0.57
Palo Alto Outfall	California Mussel	02/09/90	23.273	40	0.58
Palo Alto/Channel Marker 8	California Mussel	01/18/82	29.809	40	0.75
Palo Alto/Channel Marker 8	California Mussel	01/16/91	35.000	40	0.88
Palo Alto/Channel Marker 8	California Mussel	12/16/91	26.000	40	0.65
Palo Alto/Channel Marker 8	California Mussel	02/01/93	32.000	40	0.80
Palo Alto/Yacht Club	California Mussel	01/18/82	27.023	40	0.68
San Jose, Coyote Creek Slough	*Macoma balthica*	2/10/94	63.45	40	1.59
San Jose, Coyote Creek Slough	*Macoma balthica*	4/21/94	34.65	40	0.87
San Jose, Coyote Creek Slough	*Macoma balthica*	6/17/94	34.35	40	0.86
San Jose, Coyote Creek Slough	*Macoma balthica*	9/13/94	24.45	40	0.61
Sand Point	*Macoma balthica*	5/15/90	20.7	40	0.52
Sand Point	*Macoma balthica*	6/12/90	20.37	40	0.51
Sand Point	*Macoma balthica*	7/24/90	21.645	40	0.54
Sand Point	*Macoma balthica*	9/19/90	30.075	40	0.75
Sand Point	*Macoma balthica*	10/31/90	26.205	40	0.66
Sand Point	*Macoma balthica*	12/17/90	28.95	40	0.72
Sand Point	*Macoma balthica*	1/28/91	40.35	40	1.01
Sand Point	*Macoma balthica*	3/5/91	30.075	40	0.75
Sand Point	*Macoma balthica*	4/8/91	32.55	40	0.81
Sand Point	*Macoma balthica*	5/15/91	25.125	40	0.63
Sand Point	*Macoma balthica*	6/12/91	19.17	40	0.48
Sand Point	*Macoma balthica*	7/16/91	20.715	40	0.52
Sand Point	*Macoma balthica*	8/12/91	24.93	40	0.62
Sand Point	*Macoma balthica*	Nov-91	25.305	40	0.63
Sand Point	*Macoma balthica*	12/16/91	28.86	40	0.72
Sand Point	*Macoma balthica*	1/15/92	30.165	40	0.75
Sand Point	*Macoma balthica*	2/25/92	48.645	40	1.22
Sand Point	*Macoma balthica*	3/23/92	56.07	40	1.40
Sand Point	*Macoma balthica*	5/6/92	46.815	40	1.17
Sand Point	*Macoma balthica*	6/2/92	41.67	40	1.04

COMPARISON OF AUSTRALIAN CRITERIA FOR HUMAN HEALTH PROTECTION FOR ZINC WITH FISH AND SHELLFISH TISSUE SAMPLES

Station ID	Species	Date	Zinc (mg/kg wet wt.)	Objective (40 mg/kg wet wt.)	Exceedance Factor
Sand Point	*Macoma balthica*	7/14/92	43.95	40	1.10
Sand Point	*Macoma balthica*	8/12/92	38.82	40	0.97
Sand Point	*Macoma balthica*	10/23/92	30.495	40	0.76
Sand Point	*Macoma balthica*	11/23/92	31.215	40	0.78
Sand Point	*Macoma balthica*	12/21/92	47.49	40	1.19
Sand Point	*Macoma balthica*	1/19/93	52.05	40	1.30
Sand Point	*Macoma balthica*	2/9/93	68.85	40	1.72
Sand Point	*Macoma balthica*	3/16/93	49.35	40	1.23
Sand Point	*Macoma balthica*	5/11/93	27.6	40	0.69
Sand Point	*Macoma balthica*	Aug-93	31.05	40	0.78
Sand Point	*Macoma balthica*	Sep-93	28.8	40	0.72
Sand Point	*Macoma balthica*	Oct-93	34.35	40	0.86
Sand Point	*Macoma balthica*	Nov-93	34.35	40	0.86
Sand Point	*Macoma balthica*	Jan-94	49.05	40	1.23
Sand Point	*Macoma balthica*	Feb-94	44.4	40	1.11
Sand Point	*Macoma balthica*	Mar-94	46.2	40	1.16
Sand Point	*Macoma balthica*	Apr-94	41.4	40	1.04
Sand Point	*Macoma balthica*	Jun-94	39	40	0.98
Sand Point	*Macoma balthica*	Sep-94	37.8	40	0.95
Sand Point	*Macoma balthica*	Oct-94	42	40	1.05
Dumbarton Bridge	Shiner Surf Perch	05/02/94	9.80	40	0.25
Fremont Forebay	Striped Bass	05/20/94	5.59	40	0.14
Fremont Forebay	Striped Bass	05/20/94	4.81	40	0.12
Fremont Forebay	Striped Bass	05/20/94	5.12	40	0.13
Fremont Forebay	Striped Bass	05/20/94	4.70	40	0.12
Dumbarton Bridge	White Croaker	05/02/94	5.66	40	0.14
Dumbarton Bridge	White Croaker	05/02/94	5.20	40	0.13
Dumbarton Bridge	White Croaker	05/02/94	5.99	40	0.15
		Total Exceedances			**16**
		Percent Exceedance			**21.05%**
		Average Exceedance Factor			**0.75**

Moisture content of the *Macoma balthica* samples is assumed to be 85%.

TRANSITION ZONE REGIME DATA

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR CADMIUM WITH TRANSITION ZONE WATER SAMPLES
WET SEASON DATA

Station ID	Cadmium Total (µg/l)	Cadmium Dissolved (µg/l)	Total Objective (9.3 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (9.3 ug/L)	Exceedance Factor DISSOLVED
C-1-1	0.08	0.06	9.3	0.0	9.3	0.0
C-1-1	0.05	0.06	9.3	0.0	9.3	0.0
C-1-1	0.03	0.03	9.3	0.0	9.3	0.0
C-1-1	0.13	0.07	9.3	0.0	9.3	0.0
C-1-1	0.11	0.05	9.3	0.0	9.3	0.0
C-1-1	0.12	0.09	9.3	0.0	9.3	0.0
C-1-1	0.07	0.04	9.3	0.0	9.3	0.0
C-1-3	0.43	0.13	9.3	0.0	9.3	0.0
C-1-3	0.17	0.15	9.3	0.0	9.3	0.0
C-1-3	0.07	0.08	9.3	0.0	9.3	0.0
C-1-3	0.07	0.05	9.3	0.0	9.3	0.0
C-1-3	0.37	0.07	9.3	0.0	9.3	0.0
C-1-3	0.31	0.14	9.3	0.0	9.3	0.0
C-1-3	0.20	0.12	9.3	0.0	9.3	0.0
C-1-3	0.0575	0.0594	9.3	0.0	9.3	0.0
C-1-3	0.0426	0.0383	9.3	0.0	9.3	0.0
C-2-5	0.38	0.21	9.3	0.0	9.3	0.0
C-2-5	0.12	0.11	9.3	0.0	9.3	0.0
C-2-5	0.15	0.06	9.3	0.0	9.3	0.0
C-2-5	0.11	0.11	9.3	0.0	9.3	0.0
C-2-5	0.11	0.12	9.3	0.0	9.3	0.0
C-2-5	0.12	0.26	9.3	0.0	9.3	0.0
C-3-0	0.38	0.08	9.3	0.0	9.3	0.0
C-3-0	0.14	0.17	9.3	0.0	9.3	0.0
C-3-0	0.14	0.10	9.3	0.0	9.3	0.0
C-3-0	0.13	0.13	9.3	0.0	9.3	0.0
C-3-0	0.14	0.13	9.3	0.0	9.3	0.0
C-3-0	0.16	0.17	9.3	0.0	9.3	0.0
C-3-0	0.11	0.14	9.3	0.0	9.3	0.0
C-3-0	0.0707	0.0674	9.3	0.0	9.3	0.0
C-3-0	0.1068	0.1023	9.3	0.0	9.3	0.0
C-5-0	0.29	0.18	9.3	0.0	9.3	0.0
C-5-0	0.11	0.18	9.3	0.0	9.3	0.0
C-5-0	0.11	0.09	9.3	0.0	9.3	0.0
C-5-0	0.20	0.12	9.3	0.0	9.3	0.0
C-5-0	0.10	0.10	9.3	0.0	9.3	0.0
C-5-0	0.12	0.12	9.3	0.0	9.3	0.0
C-X	0.46	0.19	9.3	0.0	9.3	0.0
C-X	0.22	0.19	9.3	0.0	9.3	0.0
C-X	0.16	0.15	9.3	0.0	9.3	0.0
C-X	0.14	0.13	9.3	0.0	9.3	0.0
C-X	0.18	0.13	9.3	0.0	9.3	0.0
C-X	0.15	0.13	9.3	0.0	9.3	0.0
R-2	0.24	0.18	9.3	0.0	9.3	0.0
R-2	0.11	0.17	9.3	0.0	9.3	0.0
R-2	0.11	0.15	9.3	0.0	9.3	0.0
R-2	0.16	0.13	9.3	0.0	9.3	0.0
R-2	0.16	0.13	9.3	0.0	9.3	0.0
R-2	0.11	0.10	9.3	0.0	9.3	0.0
R-4	0.29	0.16	9.3	0.0	9.3	0.0
R-4	0.14	0.18	9.3	0.0	9.3	0.0
R-4	0.13	0.15	9.3	0.0	9.3	0.0
R-4	0.12	0.14	9.3	0.0	9.3	0.0
R-4	0.15	0.28	9.3	0.0	9.3	0.0
R-4	0.14	0.14	9.3	0.0	9.3	0.0
R-4	0.11	0.13	9.3	0.0	9.3	0.0
R-5	0.27	0.10	9.3	0.0	9.3	0.0
R-5	0.15	0.16	9.3	0.0	9.3	0.0
R-5	0.16	0.08	9.3	0.0	9.3	0.0
R-5	0.10	0.11	9.3	0.0	9.3	0.0
R-5	0.10	0.09	9.3	0.0	9.3	0.0
R-5	0.12	0.13	9.3	0.0	9.3	0.0
R-7	0.42	0.04	9.3	0.0	9.3	0.0
R-7	0.21	0.15	9.3	0.0	9.3	0.0
R-7	0.13	0.15	9.3	0.0	9.3	0.0
R-7	0.18	0.03	9.3	0.0	9.3	0.0

Total Exceedances	**0**		**0**
Percent Exceedance	**0%**		**0%**
Average Exceedance	**0.0**		**0.0**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR CADMIUM WITH TRANSITION ZONE WATER SAMPLES
DRY SEASON DATA

Station ID	Cadmium Total (µg/l)	Cadmium Dissolved (µg/l)	Total Objective (9.3 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (9.3 ug/L)	Exceedance Factor DISSOLVED
C-1-1	0.13	0.07	9.3	0.0	9.3	0.0
C-1-1	0.07	0.08	9.3	0.0	9.3	0.0
C-1-1	0.10	0.06	9.3	0.0	9.3	0.0
C-1-1	0.02	0.03	9.3	0.0	9.3	0.0
C-1-1	0.08	0.10	9.3	0.0	9.3	0.0
C-1-1	0.11	0.07	9.3	0.0	9.3	0.0
C-1-1	0.08	0.10	9.3	0.0	9.3	0.0
C-1-3	0.22	0.14	9.3	0.0	9.3	0.0
C-1-3	0.18	0.16	9.3	0.0	9.3	0.0
C-1-3	0.20	0.16	9.3	0.0	9.3	0.0
C-1-3	0.17	0.17	9.3	0.0	9.3	0.0
C-1-3	0.48	0.26	9.3	0.1	9.3	0.0
C-1-3	0.05	0.18	9.3	0.0	9.3	0.0
C-1-3	0.14	0.09	9.3	0.0	9.3	0.0
C-1-3	0.059	0.0502	9.3	0.0	9.3	0.0
C-2-5	0.25	0.11	9.3	0.0	9.3	0.0
C-2-5	0.18	0.15	9.3	0.0	9.3	0.0
C-2-5	0.12	0.14	9.3	0.0	9.3	0.0
C-2-5	0.14	0.10	9.3	0.0	9.3	0.0
C-2-5	0.26	0.13	9.3	0.0	9.3	0.0
C-2-5	0.14	0.10	9.3	0.0	9.3	0.0
C-3-0	0.26	0.23	9.3	0.0	9.3	0.0
C-3-0	0.25	0.22	9.3	0.0	9.3	0.0
C-3-0	0.12	0.14	9.3	0.0	9.3	0.0
C-3-0	0.22	0.14	9.3	0.0	9.3	0.0
C-3-0	0.24	0.14	9.3	0.0	9.3	0.0
C-3-0	0.19	0.15	9.3	0.0	9.3	0.0
C-3-0	0.14	0.12	9.3	0.0	9.3	0.0
C-3-0	0.1786	0.1729	9.3	0.0	9.3	0.0
C-5-0	0.29	0.19	9.3	0.0	9.3	0.0
C-5-0	0.24	0.20	9.3	0.0	9.3	0.0
C-5-0	1.68	0.27	9.3	0.2	9.3	0.0
C-5-0	0.19	0.13	9.3	0.0	9.3	0.0
C-5-0	0.21	0.15	9.3	0.0	9.3	0.0
C-5-0	0.14	0.18	9.3	0.0	9.3	0.0
C-X	0.30	0.26	9.3	0.0	9.3	0.0
C-X	0.21	0.18	9.3	0.0	9.3	0.0
C-X	0.18	0.18	9.3	0.0	9.3	0.0
C-X	0.14	0.06	9.3	0.0	9.3	0.0
C-X	0.22	0.13	9.3	0.0	9.3	0.0
C-X	0.16	0.17	9.3	0.0	9.3	0.0
R-2	0.21	0.12	9.3	0.0	9.3	0.0
R-2	0.24	0.12	9.3	0.0	9.3	0.0
R-2	0.10	0.20	9.3	0.0	9.3	0.0
R-2	0.14	0.14	9.3	0.0	9.3	0.0
R-2	0.24	0.18	9.3	0.0	9.3	0.0
R-2	0.18	0.14	9.3	0.0	9.3	0.0
R-4	0.18	0.19	9.3	0.0	9.3	0.0
R-4	0.22	0.12	9.3	0.0	9.3	0.0
R-4	0.23	0.14	9.3	0.0	9.3	0.0
R-4	0.13	0.09	9.3	0.0	9.3	0.0
R-4	0.30	0.18	9.3	0.0	9.3	0.0
R-4	0.22	0.20	9.3	0.0	9.3	0.0
R-4	0.25	0.10	9.3	0.0	9.3	0.0
R-5	0.22	0.14	9.3	0.0	9.3	0.0
R-5	0.19	0.14	9.3	0.0	9.3	0.0
R-5	0.22	0.14	9.3	0.0	9.3	0.0
R-5	0.10	0.09	9.3	0.0	9.3	0.0
R-5	0.26	0.13	9.3	0.0	9.3	0.0
R-5	0.32	0.29	9.3	0.0	9.3	0.0
R-7	0.24	0.02	9.3	0.0	9.3	0.0
R-7	0.15	0.17	9.3	0.0	9.3	0.0
R-7	0.08	0.02	9.3	0.0	9.3	0.0
R-7	0.16	0.14	9.3	0.0	9.3	0.0
			Total Exceedances	0		0
			Percent Exceedance	0%		0%
			Average Exceedance	0.0		0.0

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR CHROMIUM WITH TRANSITION ZONE WATER SAMPLES
WET SEASON DATA

Station ID	Chromium Total (µg/l)	Chromium Dissolved (µg/l)	Total Objective (50 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (50 ug/L)	Exceedance Factor DISSOLVED
C-1-1	0.40	0.10	50.0	0.0	50.0	0.0
C-1-1	0.10	0.10	50.0	0.0	50.0	0.0
C-1-1	0.20	0.10	50.0	0.0	50.0	0.0
C-1-1	2.10	0.10	50.0	0.0	50.0	0.0
C-1-1	0.20	0.10	50.0	0.0	50.0	0.0
C-1-1	0.24	0.10	50.0	0.0	50.0	0.0
C-1-1	7.47	0.50	50.0	0.1	50.0	0.0
C-1-3	6.30	0.10	50.0	0.1	50.0	0.0
C-1-3	1.70	0.10	50.0	0.0	50.0	0.0
C-1-3	1.30	0.20	50.0	0.0	50.0	0.0
C-1-3	1.10	0.10	50.0	0.0	50.0	0.0
C-1-3	0.80	0.10	50.0	0.0	50.0	0.0
C-1-3	0.31	0.10	50.0	0.0	50.0	0.0
C-1-3	63.33	0.30	50.0	1.3	50.0	0.0
C-1-3	5.78	0.2	50.0	0.1	50.0	0.0
C-1-3	8.6	2.7	50.0	0.2	50.0	0.1
C-2-5	5.10	0.10	50.0	0.1	50.0	0.0
C-2-5	0.40	0.10	50.0	0.0	50.0	0.0
C-2-5	3.40	0.20	50.0	0.1	50.0	0.0
C-2-5	0.20	0.10	50.0	0.0	50.0	0.0
C-2-5	0.90	0.70	50.0	0.0	50.0	0.0
C-2-5	0.17	0.10	50.0	0.0	50.0	0.0
C-3-0	10.40	0.10	50.0	0.2	50.0	0.0
C-3-0	0.80	0.10	50.0	0.0	50.0	0.0
C-3-0	3.50	0.20	50.0	0.1	50.0	0.0
C-3-0	0.50	0.10	50.0	0.0	50.0	0.0
C-3-0	0.50	0.50	50.0	0.0	50.0	0.0
C-3-0	0.23	0.15	50.0	0.0	50.0	0.0
C-3-0	15.00	0.37	50.0	0.3	50.0	0.0
C-3-0	4.73	0.11	50.0	0.1	50.0	0.0
C-3-0	8.37	-	50.0	0.2	50.0	-
C-5-0	5.20	0.20	50.0	0.1	50.0	0.0
C-5-0	1.00	0.10	50.0	0.0	50.0	0.0
C-5-0	0.80	0.20	50.0	0.0	50.0	0.0
C-5-0	1.40	0.10	50.0	0.0	50.0	0.0
C-5-0	0.20	0.10	50.0	0.0	50.0	0.0
C-5-0	0.11	0.10	50.0	0.0	50.0	0.0
C-X	3.60	0.10	50.0	0.1	50.0	0.0
C-X	2.33	0.20	50.0	0.0	50.0	0.0
C-X	1.70	0.10	50.0	0.0	50.0	0.0
C-X	1.40	0.10	50.0	0.0	50.0	0.0
C-X	1.40	0.50	50.0	0.0	50.0	0.0
C-X	0.10	0.15	50.0	0.0	50.0	0.0
R-2	1.60	0.10	50.0	0.0	50.0	0.0
R-2	0.90	0.10	50.0	0.0	50.0	0.0
R-2	0.40	0.20	50.0	0.0	50.0	0.0
R-2	1.30	0.10	50.0	0.0	50.0	0.0
R-2	2.40	0.10	50.0	0.0	50.0	0.0
R-2	0.62	0.10	50.0	0.0	50.0	0.0
R-4	3.60	0.20	50.0	0.1	50.0	0.0
R-4	0.60	0.20	50.0	0.0	50.0	0.0
R-4	0.60	0.20	50.0	0.0	50.0	0.0
R-4	2.10	0.10	50.0	0.0	50.0	0.0
R-4	1.30	0.10	50.0	0.0	50.0	0.0
R-4	0.42	0.10	50.0	0.0	50.0	0.0
R-4	7.43	0.63	50.0	0.1	50.0	0.0
R-5	8.40	0.10	50.0	0.2	50.0	0.0
R-5	1.10	0.20	50.0	0.0	50.0	0.0
R-5	0.50	0.20	50.0	0.0	50.0	0.0
R-5	0.60	0.10	50.0	0.0	50.0	0.0
R-5	0.60	0.10	50.0	0.0	50.0	0.0
R-5	0.79	0.10	50.0	0.0	50.0	0.0
R-7	3.60	0.10	50.0	0.1	50.0	0.0
R-7	0.20	0.10	50.0	0.0	50.0	0.0
R-7	0.27	0.10	50.0	0.0	50.0	0.0
R-7	23.67	1.30	50.0	0.5	50.0	0.0
			Total Exceedances	**1**		**0**
			Percent Exceedance	**2%**		**0%**
			Average Exceedance	**0.1**		**0.0**

Water Quality Objectives based on Chromium 6+

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR CHROMIUM WITH TRANSITION ZONE WATER SAMPLES
DRY SEASON DATA

Station ID	Chromium Total (µg/l)	Chromium Dissolved (µg/l)	Total Objective (50 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (50 ug/L)	Exceedance Factor DISSOLVED
C-1-1	0.50	0.10	50.0	0.0	50.0	0.0
C-1-1	0.20	0.12	50.0	0.0	50.0	0.0
C-1-1	0.30	0.10	50.0	0.0	50.0	0.0
C-1-1	0.20	0.10	50.0	0.0	50.0	0.0
C-1-1	1.10	0.40	50.0	0.0	50.0	0.0
C-1-1	3.20	0.20	50.0	0.1	50.0	0.0
C-1-1	3.80	0.15	50.0	0.1	50.0	0.0
C-1-3	0.50	0.10	50.0	0.0	50.0	0.0
C-1-3	0.59	0.13	50.0	0.0	50.0	0.0
C-1-3	0.80	0.20	50.0	0.0	50.0	0.0
C-1-3	7.90	0.10	50.0	0.2	50.0	0.0
C-1-3	5.83	0.27	50.0	0.1	50.0	0.0
C-1-3	14.00	0.20	50.0	0.3	50.0	0.0
C-1-3	25.00	0.92	50.0	0.5	50.0	0.0
C-1-3	7.93	0.45	50.0	0.2	50.0	0.0
C-2-5	0.35	0.12	50.0	0.0	50.0	0.0
C-2-5	0.54	0.10	50.0	0.0	50.0	0.0
C-2-5	0.80	0.10	50.0	0.0	50.0	0.0
C-2-5	7.90	0.10	50.0	0.2	50.0	0.0
C-2-5	2.70	0.20	50.0	0.1	50.0	0.0
C-2-5	1.30	0.20	50.0	0.0	50.0	0.0
C-3-0	0.20	0.10	50.0	0.0	50.0	0.0
C-3-0	0.89	0.16	50.0	0.0	50.0	0.0
C-3-0	0.70	0.10	50.0	0.0	50.0	0.0
C-3-0	12.00	0.10	50.0	0.2	50.0	0.0
C-3-0	2.30	0.20	50.0	0.0	50.0	0.0
C-3-0	17.00	0.20	50.0	0.3	50.0	0.0
C-3-0	22.33	0.13	50.0	0.4	50.0	0.0
C-3-0	28.26	-	50.0	0.6	50.0	
C-5-0	0.60	0.10	50.0	0.0	50.0	0.0
C-5-0	0.46	0.17	50.0	0.0	50.0	0.0
C-5-0	0.50	0.20	50.0	0.0	50.0	0.0
C-5-0	5.20	0.10	50.0	0.1	50.0	0.0
C-5-0	0.80	0.40	50.0	0.0	50.0	0.0
C-5-0	2.30	0.10	50.0	0.0	50.0	0.0
C-X	0.70	0.10	50.0	0.0	50.0	0.0
C-X	1.70	0.11	50.0	0.0	50.0	0.0
C-X	1.50	0.10	50.0	0.0	50.0	0.0
C-X	5.70	0.10	50.0	0.1	50.0	0.0
C-X	2.70	0.40	50.0	0.1	50.0	0.0
C-X	11.00	0.10	50.0	0.2	50.0	0.0
R-2	2.30	0.10	50.0	0.0	50.0	0.0
R-2	0.67	0.10	50.0	0.0	50.0	0.0
R-2	0.40	0.20	50.0	0.0	50.0	0.0
R-2	1.60	0.10	50.0	0.0	50.0	0.0
R-2	2.80	0.40	50.0	0.1	50.0	0.0
R-2	11.00	0.20	50.0	0.2	50.0	0.0
R-4	1.40	0.10	50.0	0.0	50.0	0.0
R-4	0.69	0.15	50.0	0.0	50.0	0.0
R-4	0.20	0.20	50.0	0.0	50.0	0.0
R-4	3.50	0.10	50.0	0.1	50.0	0.0
R-4	5.90	0.40	50.0	0.1	50.0	0.0
R-4	15.00	0.10	50.0	0.3	50.0	0.0
R-4	43.00	0.10	50.0	0.9	50.0	0.0
R-5	3.60	0.10	50.0	0.1	50.0	0.0
R-5	0.83	0.13	50.0	0.0	50.0	0.0
R-5	0.20	0.20	50.0	0.0	50.0	0.0
R-5	3.10	0.10	50.0	0.1	50.0	0.0
R-5	4.10	0.30	50.0	0.1	50.0	0.0
R-5	4.33	0.33	50.0	0.1	50.0	0.0
R-7	2.00	0.10	50.0	0.0	50.0	0.0
R-7	0.68	0.40	50.0	0.0	50.0	0.0
R-7	16.00	0.10	50.0	0.3	50.0	0.0
R-7	21.00	0.10	50.0	0.4	50.0	0.0

Total Exceedances	**0**	**0**
Percent Exceedance	**0%**	**0%**
Average Exceedance	**0.1**	**0.0**

Water Quality Objectives based on Chromium 6+

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR COPPER WITH TRANSITION ZONE WATER SAMPLES
WET SEASON DATA

Station ID	Copper Total (µg/l)	Copper Dissolved (µg/l)	Total Objective (4.9 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (2.4 ug/L)	Exceedance Factor DISSOLVED
C-1-1	2.6	1.8	4.9	0.5	2.4	0.8
C-1-1	6.2	4.4	4.9	1.3	2.4	1.8
C-1-1	4.7	4.7	4.9	1.0	2.4	2.0
C-1-1	8.2	2.4	4.9	1.7	2.4	1.0
C-1-1	4.2	2.2	4.9	0.9	2.4	0.9
C-1-1	4.7	1.4	4.9	1.0	2.4	0.6
C-1-1	5.43	1.80	4.9	1.1	2.4	0.8
C-1-3	23.7	2.7	4.9	4.8	2.4	1.1
C-1-3	9.4	3.8	4.9	1.9	2.4	1.6
C-1-3	7.0	3.8	4.9	1.4	2.4	1.6
C-1-3	6.3	3.0	4.9	1.3	2.4	1.3
C-1-3	4.9	2.6	4.9	1.0	2.4	1.1
C-1-3	6.1	2.9	4.9	1.2	2.4	1.2
C-1-3	21.77	2.57	4.9	4.4	2.4	1.1
C-1-3	4.3	1.96	4.9	0.9	2.4	0.8
C-1-3	5.32	4.8	4.9	1.1	2.4	2.0
C-2-5	18.2	3.8	4.9	3.7	2.4	1.6
C-2-5	5.2	3.1	4.9	1.1	2.4	1.3
C-2-5	14.0	5.0	4.9	2.9	2.4	2.1
C-2-5	4.8	3.3	4.9	1.0	2.4	1.4
C-2-5	6.0	4.1	4.9	1.2	2.4	1.7
C-2-5	6.0	4.1	4.9	1.2	2.4	1.7
C-3-0	22.1	2.7	4.9	4.5	2.4	1.1
C-3-0	6.8	3.6	4.9	1.4	2.4	1.5
C-3-0	14.0	4.3	4.9	2.9	2.4	1.8
C-3-0	5.7	3.2	4.9	1.2	2.4	1.3
C-3-0	4.9	3.6	4.9	1.0	2.4	1.5
C-3-0	7.4	3.6	4.9	1.5	2.4	1.5
C-3-0	5.33	2.63	4.9	1.1	2.4	1.1
C-3-0	4.18	2.67	4.9	0.9	2.4	1.1
C-3-0	7.14	5.93	4.9	1.5	2.4	2.5
C-5-0	11.6	3.0	4.9	2.4	2.4	1.3
C-5-0	7.4	3.7	4.9	1.5	2.4	1.5
C-5-0	5.9	3.9	4.9	1.2	2.4	1.6
C-5-0	6.3	3.5	4.9	1.3	2.4	1.5
C-5-0	4.8	3.2	4.9	1.0	2.4	1.3
C-5-0	5.2	3.8	4.9	1.1	2.4	1.6
C-X	18.2	3.9	4.9	3.7	2.4	1.6
C-X	16.7	3.6	4.9	3.4	2.4	1.5
C-X	12.0	4.9	4.9	2.4	2.4	2.0
C-X	9.3	3.6	4.9	1.9	2.4	1.5
C-X	6.0	3.5	4.9	1.2	2.4	1.5
C-X	10.4	4.0	4.9	2.1	2.4	1.7
R-2	6.3	2.8	4.9	1.3	2.4	1.2
R-2	6.5	3.8	4.9	1.3	2.4	1.6
R-2	5.2	3.9	4.9	1.1	2.4	1.6
R-2	6.6	3.5	4.9	1.3	2.4	1.5
R-2	9.6	3.6	4.9	2.0	2.4	1.5
R-2	8.00	3.40	4.9	1.6	2.4	1.4
R-4	9.1	2.8	4.9	1.9	2.4	1.2
R-4	6.8	4.5	4.9	1.4	2.4	1.9
R-4	6.2	4.0	4.9	1.3	2.4	1.7
R-4	7.7	3.8	4.9	1.6	2.4	1.6
R-4	7.0	2.9	4.9	1.4	2.4	1.2
R-4	7.6	3.2	4.9	1.6	2.4	1.3
R-4	10.07	3.23	4.9	2.1	2.4	1.3
R-5	12.1	3.3	4.9	2.5	2.4	1.4
R-5	9.2	3.7	4.9	1.9	2.4	1.5
R-5	6.0	3.8	4.9	1.2	2.4	1.6
R-5	5.3	3.4	4.9	1.1	2.4	1.4
R-5	5.7	2.3	4.9	1.2	2.4	1.0
R-5	8.6	2.9	4.9	1.8	2.4	1.2
R-7	13.0	1.9	4.9	2.7	2.4	0.8
R-7	7.2	3.2	4.9	1.5	2.4	1.3
R-7	7.4	4.6	4.9	1.5	2.4	1.9
R-7	11.80	4.20	4.9	2.4	2.4	1.8

Total Exceedances	**56**	**58**
Percent Exceedance	**85%**	**88%**
Average Exceedance	**1.7**	**1.4**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR COPPER WITH TRANSITION ZONE WATER SAMPLES
DRY SEASON DATA

Station ID	Copper Total (µg/l)	Copper Dissolved (µg/l)	Total Objective (4.9 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (2.4 ug/L)	Exceedance Factor DISSOLVED
C-1-1	4.3	3.5	4.9	0.9	2.4	1.5
C-1-1	3.40	4.20	4.9	0.7	2.4	1.8
C-1-1	2.3	1.8	4.9	0.5	2.4	0.8
C-1-1	4.2	4.2	4.9	0.9	2.4	1.8
C-1-1	8.6	6.5	4.9	1.8	2.4	2.7
C-1-1	7.6	3.4	4.9	1.6	2.4	1.4
C-1-1	5.97	3.07	4.9	1.2	2.4	1.3
C-1-3	6.6	4.9	4.9	1.3	2.4	2.0
C-1-3	5.2	5.2	4.9	1.1	2.4	2.2
C-1-3	6.6	3.1	4.9	1.3	2.4	1.3
C-1-3	17.0	8.9	4.9	3.5	2.4	3.7
C-1-3	17.53	7.53	4.9	3.6	2.4	3.1
C-1-3	5.5	4.1	4.9	1.1	2.4	1.7
C-1-3	16.33	3.57	4.9	3.3	2.4	1.5
C-1-3	5.56	2.71	4.9	1.1	2.4	1.1
C-2-5	7.65	4.20	4.9	1.6	2.4	1.8
C-2-5	5.0	4.4	4.9	1.0	2.4	1.8
C-2-5	5.9	3.3	4.9	1.2	2.4	1.4
C-2-5	14.0	5.8	4.9	2.9	2.4	2.4
C-2-5	15.0	6.8	4.9	3.1	2.4	2.8
C-2-5	5.6	4.4	4.9	1.1	2.4	1.8
C-3-0	6.7	4.5	4.9	1.4	2.4	1.9
C-3-0	6.3	4.4	4.9	1.3	2.4	1.8
C-3-0	6.4	3.3	4.9	1.3	2.4	1.4
C-3-0	17.0	9.4	4.9	3.5	2.4	3.9
C-3-0	13.0	7.4	4.9	2.7	2.4	3.1
C-3-0	22.0	4.5	4.9	4.5	2.4	1.9
C-3-0	11.00	4.10	4.9	2.2	2.4	1.7
C-3-0	13.05	4.09	4.9	2.7	2.4	1.7
C-5-0	7.5	3.6	4.9	1.5	2.4	1.5
C-5-0	4.7	3.9	4.9	1.0	2.4	1.6
C-5-0	4.3	3.6	4.9	0.9	2.4	1.5
C-5-0	14.0	7.3	4.9	2.9	2.4	3.0
C-5-0	10.0	7.0	4.9	2.0	2.4	2.9
C-5-0	6.8	4.1	4.9	1.4	2.4	1.7
C-X	10.0	4.7	4.9	2.0	2.4	2.0
C-X	8.6	4.9	4.9	1.8	2.4	2.0
C-X	12.4	3.5	4.9	2.5	2.4	1.5
C-X	12.0	5.5	4.9	2.4	2.4	2.3
C-X	15.0	7.3	4.9	3.1	2.4	3.0
C-X	15.0	4.4	4.9	3.1	2.4	1.8
R-2	13.0	4.2	4.9	2.7	2.4	1.8
R-2	5.7	4.3	4.9	1.2	2.4	1.8
R-2	5.1	2.7	4.9	1.0	2.4	1.1
R-2	8.0	5.5	4.9	1.6	2.4	2.3
R-2	13.0	7.4	4.9	2.7	2.4	3.1
R-2	16.0	3.6	4.9	3.3	2.4	1.5
R-4	9.8	4.2	4.9	2.0	2.4	1.8
R-4	6.0	3.6	4.9	1.2	2.4	1.5
R-4	5.2	2.6	4.9	1.1	2.4	1.1
R-4	7.6	6.7	4.9	1.6	2.4	2.8
R-4	20.0	6.8	4.9	4.1	2.4	2.8
R-4	23.0	4.2	4.9	4.7	2.4	1.8
R-4	14.67	3.80	4.9	3.0	2.4	1.6
R-5	8.9	3.8	4.9	1.8	2.4	1.6
R-5	6.6	4.6	4.9	1.3	2.4	1.9
R-5	5.2	2.6	4.9	1.1	2.4	1.1
R-5	8.60	6.25	4.9	1.8	2.4	2.6
R-5	17.0	7.6	4.9	3.5	2.4	3.2
R-5	8.07	4.23	4.9	1.6	2.4	1.8
R-7	36.0	4.4	4.9	7.3	2.4	1.8
R-7	8.5	5.7	4.9	1.7	2.4	2.4
R-7	5.6	2.1	4.9	1.1	2.4	0.9
R-7	14.00	3.83	4.9	2.9	2.4	1.6

Total Exceedances	58	62
Percent Exceedance	91%	97%
Average Exceedance	2.1	2.0

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR LEAD WITH TRANSITION ZONE WATER SAMPLES
WET SEASON DATA

Station ID	Lead Total (µg/l)	Lead Dissolved (µg/l)	Total Objective (5.6 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (8.1 ug/L)	Exceedance Factor DISSOLVED
C-1-1	1.20	0.4	5.6	0.2	8.1	0.0
C-1-1	0.20	0.4	5.6	0.0	8.1	0.0
C-1-1	0.20	0.1	5.6	0.0	8.1	0.0
C-1-1	4.40	1.0	5.6	0.8	8.1	0.1
C-1-1	1.20	0.4	5.6	0.2	8.1	0.0
C-1-1	2.40	0.3	5.6	0.4	8.1	0.0
C-1-1	3.13	0.10	5.6	0.6	8.1	0.0
C-1-3	4.50	0.7	5.6	0.8	8.1	0.1
C-1-3	3.30	0.1	5.6	0.6	8.1	0.0
C-1-3	0.40	0.4	5.6	0.1	8.1	0.0
C-1-3	3.40	0.8	5.6	0.6	8.1	0.1
C-1-3	1.30	0.2	5.6	0.2	8.1	0.0
C-1-3	1.80	0.2	5.6	0.3	8.1	0.0
C-1-3	24.17	0.13	5.6	4.3	8.1	0.0
C-1-3	2.26	0.2193	5.6	0.4	8.1	0.0
C-1-3	2.94	1.249	5.6	0.5	8.1	0.2
C-2-5	5.50	0.7	5.6	1.0	8.1	0.1
C-2-5	1.20	0.1	5.6	0.2	8.1	0.0
C-2-5	1.50	0.6	5.6	0.3	8.1	0.1
C-2-5	1.40	0.4	5.6	0.3	8.1	0.0
C-2-5	1.00	0.5	5.6	0.2	8.1	0.1
C-2-5	1.10	0.4	5.6	0.2	8.1	0.0
C-3-0	8.80	0.9	5.6	1.6	8.1	0.1
C-3-0	1.50	0.3	5.6	0.3	8.1	0.0
C-3-0	1.40	0.3	5.6	0.3	8.1	0.0
C-3-0	2.00	0.3	5.6	0.4	8.1	0.0
C-3-0	1.00	0.3	5.6	0.2	8.1	0.0
C-3-0	1.70	0.2	5.6	0.3	8.1	0.0
C-3-0	2.37	0.10	5.6	0.4	8.1	0.0
C-3-0	1.69	0.2947	5.6	0.3	8.1	0.0
C-3-0	2.86	0.8122	5.6	0.5	8.1	0.1
C-5-0	3.90	1.0	5.6	0.7	8.1	0.1
C-5-0	1.10	0.1	5.6	0.2	8.1	0.0
C-5-0	0.40	0.4	5.6	0.1	8.1	0.0
C-5-0	0.40	0.4	5.6	0.1	8.1	0.0
C-5-0	0.80	0.2	5.6	0.1	8.1	0.0
C-5-0	0.90	0.2	5.6	0.2	8.1	0.0
C-X	5.40	0.7	5.6	1.0	8.1	0.1
C-X	3.50	0.4	5.6	0.6	8.1	0.0
C-X	1.40	0.1	5.6	0.3	8.1	0.0
C-X	3.80	0.5	5.6	0.7	8.1	0.1
C-X	1.70	0.3	5.6	0.3	8.1	0.0
C-X	3.00	0.6	5.6	0.5	8.1	0.1
R-2	1.70	0.7	5.6	0.3	8.1	0.1
R-2	1.20	0.2	5.6	0.2	8.1	0.0
R-2	0.70	0.3	5.6	0.1	8.1	0.0
R-2	2.10	0.2	5.6	0.4	8.1	0.0
R-2	3.20	0.5	5.6	0.6	8.1	0.1
R-2	2.25	0.20	5.6	0.4	8.1	0.0
R-4	3.10	0.8	5.6	0.6	8.1	0.1
R-4	0.80	0.4	5.6	0.1	8.1	0.0
R-4	0.80	0.2	5.6	0.1	8.1	0.0
R-4	3.50	0.4	5.6	0.6	8.1	0.0
R-4	2.70	0.2	5.6	0.5	8.1	0.0
R-4	1.50	0.1	5.6	0.3	8.1	0.0
R-4	6.03	0.10	5.6	1.1	8.1	0.0
R-5	3.60	1.2	5.6	0.6	8.1	0.1
R-5	1.40	0.3	5.6	0.3	8.1	0.0
R-5	0.70	0.4	5.6	0.1	8.1	0.0
R-5	1.00	0.3	5.6	0.2	8.1	0.0
R-5	1.90	0.2	5.6	0.3	8.1	0.0
R-5	3.50	0.2	5.6	0.6	8.1	0.0
R-7	17.00	0.7	5.6	3.0	8.1	0.1
R-7	1.90	0.4	5.6	0.3	8.1	0.0
R-7	2.70	0.4	5.6	0.5	8.1	0.0
R-7	14.60	0.17	5.6	2.6	8.1	0.0
			Total Exceedances	5		0
			Percent Exceedance	8%		0%
			Average Exceedance	0.5		0.0

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR LEAD WITH TRANSITION ZONE WATER SAMPLES

DRY SEASON DATA

Station ID	Lead Total (µg/l)	Lead Dissolved (µg/l)	Total Objective (5.6 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (8.1 ug/L)	Exceedance Factor DISSOLVED
C-1-1	1.40	0.1	5.6	0.3	8.1	0.0
C-1-1	0.35	0.95	5.6	0.1	8.1	0.1
C-1-1	0.40	0.3	5.6	0.1	8.1	0.0
C-1-1	0.68	0.3	5.6	0.1	8.1	0.0
C-1-1	1.40	0.2	5.6	0.3	8.1	0.0
C-1-1	1.50	0.1	5.6	0.3	8.1	0.0
C-1-1	3.03	0.63	5.6	0.5	8.1	0.1
C-1-3	0.70	0.1	5.6	0.1	8.1	0.0
C-1-3	0.60	0.2	5.6	0.1	8.1	0.0
C-1-3	0.90	0.1	5.6	0.2	8.1	0.0
C-1-3	1.80	0.1	5.6	0.3	8.1	0.0
C-1-3	5.03	0.27	5.6	0.9	8.1	0.0
C-1-3	0.40	0.1	5.6	0.1	8.1	0.0
C-1-3	12.33	0.33	5.6	2.2	8.1	0.0
C-1-3	2.19	0.3439	5.6	0.4	8.1	0.0
C-2-5	0.30	0.10	5.6	0.1	8.1	0.0
C-2-5	0.10	0.1	5.6	0.0	8.1	0.0
C-2-5	0.40	0.1	5.6	0.1	8.1	0.0
C-2-5	1.30	0.1	5.6	0.2	8.1	0.0
C-2-5	2.40	0.2	5.6	0.4	8.1	0.0
C-2-5	0.40	0.1	5.6	0.1	8.1	0.0
C-3-0	0.30	0.1	5.6	0.1	8.1	0.0
C-3-0	0.70	0.2	5.6	0.1	8.1	0.0
C-3-0	0.60	0.1	5.6	0.1	8.1	0.0
C-3-0	3.50	1.1	5.6	0.6	8.1	0.1
C-3-0	1.90	0.3	5.6	0.3	8.1	0.0
C-3-0	1.00	0.1	5.6	0.2	8.1	0.0
C-3-0	7.03	0.67	5.6	1.3	8.1	0.1
C-3-0	7.73	0.1573	5.6	1.4	8.1	0.0
C-5-0	0.70	0.1	5.6	0.1	8.1	0.0
C-5-0	0.10	0.1	5.6	0.0	8.1	0.0
C-5-0	1.00	0.1	5.6	0.2	8.1	0.0
C-5-0	1.30	0.1	5.6	0.2	8.1	0.0
C-5-0	1.30	0.3	5.6	0.2	8.1	0.0
C-5-0	1.00	0.1	5.6	0.2	8.1	0.0
C-X	1.20	0.3	5.6	0.2	8.1	0.0
C-X	0.90	0.1	5.6	0.2	8.1	0.0
C-X	1.50	0.1	5.6	0.3	8.1	0.0
C-X	1.70	0.1	5.6	0.3	8.1	0.0
C-X	2.70	0.4	5.6	0.5	8.1	0.0
C-X	3.60	0.1	5.6	0.6	8.1	0.0
R-2	2.10	0.2	5.6	0.4	8.1	0.0
R-2	0.10	0.1	5.6	0.0	8.1	0.0
R-2	0.70	0.1	5.6	0.1	8.1	0.0
R-2	0.61	0.1	5.6	0.1	8.1	0.0
R-2	2.30	0.2	5.6	0.4	8.1	0.0
R-2	2.80	0.1	5.6	0.5	8.1	0.0
R-4	1.30	0.2	5.6	0.2	8.1	0.0
R-4	0.40	0.1	5.6	0.1	8.1	0.0
R-4	0.80	0.1	5.6	0.1	8.1	0.0
R-4	0.49	0.1	5.6	0.1	8.1	0.0
R-4	3.20	0.2	5.6	0.6	8.1	0.0
R-4	5.20	0.2	5.6	0.9	8.1	0.0
R-4	9.47	0.20	5.6	1.7	8.1	0.0
R-5	1.10	0.2	5.6	0.2	8.1	0.0
R-5	0.40	0.1	5.6	0.1	8.1	0.0
R-5	0.30	0.1	5.6	0.1	8.1	0.0
R-5	1.20	0.10	5.6	0.2	8.1	0.0
R-5	1.80	0.2	5.6	0.3	8.1	0.0
R-5	1.53	0.17	5.6	0.3	8.1	0.0
R-7	0.41	0.1	5.6	0.1	8.1	0.0
R-7	1.00	0.2	5.6	0.2	8.1	0.0
R-7	7.40	0.2	5.6	1.3	8.1	0.0
R-7	10.37	0.30	5.6	1.9	8.1	0.0
			Total Exceedances	**6**		**0**
			Percent Exceedance	**9%**		**0%**
			Average Exceedance	**0.4**		**0.0**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR MERCURY WITH TRANSITION ZONE WATER SAMPLES
WET SEASON DATA

Station ID	Mercury Total (µg/l)	Mercury Dissolved (µg/l)	Total Objective (0.025 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (0.025 ug/L)	Exceedance Factor DISSOLVED
C-1-1	0.180	0.120	0.025	7.2	0.025	4.8
C-1-1	0.010	0.010	0.025	0.4	0.025	0.4
C-1-1	0.020	0.020	0.025	0.8	0.025	0.8
C-1-1	0.050	0.040	0.025	2.0	0.025	1.6
C-1-1	0.020	0.020	0.025	0.8	0.025	0.8
C-1-1	0.027	0.023	0.025	1.1	0.025	0.9
C-1-1	0.02	0.03	0.025	0.8	0.025	1.3
C-1-3	0.180	0.120	0.025	7.2	0.025	4.8
C-1-3	0.030	0.010	0.025	1.2	0.025	0.4
C-1-3	0.020	0.020	0.025	0.8	0.025	0.8
C-1-3	0.020	0.020	0.025	0.8	0.025	0.8
C-1-3	0.020	0.020	0.025	0.8	0.025	0.8
C-1-3	0.051	0.025	0.025	2.0	0.025	1.0
C-1-3	0.03	0.03	0.025	1.2	0.025	1.2
C-1-3	0.0199	0.002	0.025	0.8	0.025	0.1
C-1-3	0.0235	0.0143	0.025	0.9	0.025	0.6
C-2-5	0.200	0.160	0.025	8.0	0.025	6.4
C-2-5	0.010	0.010	0.025	0.4	0.025	0.4
C-2-5	0.040	0.020	0.025	1.6	0.025	0.8
C-2-5	0.020	0.020	0.025	0.8	0.025	0.8
C-2-5	0.020	0.020	0.025	0.8	0.025	0.8
C-2-5	0.023	0.016	0.025	0.9	0.025	0.6
C-3-0	0.190	0.140	0.025	7.6	0.025	5.6
C-3-0	0.060	0.030	0.025	2.4	0.025	1.2
C-3-0	0.030	0.030	0.025	1.2	0.025	1.2
C-3-0	0.020	0.020	0.025	0.8	0.025	0.8
C-3-0	0.220	0.030	0.025	8.8	0.025	1.2
C-3-0	0.040	0.028	0.025	1.6	0.025	1.1
C-3-0	0.04	0.02	0.025	1.7	0.025	0.8
C-3-0	0.0217	0.0036	0.025	0.9	0.025	0.1
C-3-0	0.0215	0.0084	0.025	0.9	0.025	0.3
C-5-0	0.240	0.110	0.025	9.6	0.025	4.4
C-5-0	0.080	0.060	0.025	3.2	0.025	2.4
C-5-0	0.030	0.030	0.025	1.2	0.025	1.2
C-5-0	0.040	0.030	0.025	1.6	0.025	1.2
C-5-0	0.020	0.020	0.025	0.8	0.025	0.8
C-5-0	0.020	0.020	0.025	0.8	0.025	0.8
C-X	0.280	0.150	0.025	11.2	0.025	6.0
C-X	0.090	0.080	0.025	3.6	0.025	3.2
C-X	0.020	0.020	0.025	0.8	0.025	0.8
C-X	0.020	0.030	0.025	0.8	0.025	1.2
C-X	0.030	0.020	0.025	1.2	0.025	0.8
C-X	0.056	0.020	0.025	2.2	0.025	0.8
R-2	0.150	0.040	0.025	6.0	0.025	1.6
R-2	0.060	0.040	0.025	2.4	0.025	1.6
R-2	0.070	0.030	0.025	2.8	0.025	1.2
R-2	0.550	0.110	0.025	22.0	0.025	4.4
R-2	0.040	0.020	0.025	1.6	0.025	0.8
R-2	0.05	0.03	0.025	2.0	0.025	1.3
R-4	0.110	0.110	0.025	4.4	0.025	4.4
R-4	0.060	0.020	0.025	2.4	0.025	0.8
R-4	0.030	0.030	0.025	1.2	0.025	1.2
R-4	0.050	0.020	0.025	2.0	0.025	0.8
R-4	0.030	0.030	0.025	1.2	0.025	1.2
R-4	0.047	0.027	0.025	1.9	0.025	1.1
R-4	0.03	0.02	0.025	1.2	0.025	0.8
R-5	0.130	0.050	0.025	5.2	0.025	2.0
R-5	0.030	0.020	0.025	1.2	0.025	0.8
R-5	0.050	0.040	0.025	2.0	0.025	1.6
R-5	0.030	0.020	0.025	1.2	0.025	0.8
R-5	0.160	0.180	0.025	6.4	0.025	7.2
R-5	0.078	0.030	0.025	3.1	0.025	1.2
R-7	0.020	0.020	0.025	0.8	0.025	0.8
R-7	0.020	0.020	0.025	0.8	0.025	0.8
R-7	0.037	0.025	0.025	1.5	0.025	1.0
R-7	0.02	0.02	0.025	0.8	0.025	0.8

Total Exceedances	**43**	**31**
Percent Exceedance	**65%**	**47%**
Average Exceedance	**2.7**	**1.6**

TZWWET.XLS, Mercury

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR MERCURY WITH TRANSITION ZONE WATER SAMPLES

WET SEASON DATA

Station ID	Mercury Total (µg/l)	Mercury Dissolved (µg/l)	Total Objective (0.025 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (NA)	Exceedance Factor DISSOLVED
C-1-1	0.180	0.120	0.025	7.2	NA	
C-1-1	0.010	0.010	0.025	0.4	NA	
C-1-1	0.020	0.020	0.025	0.8	NA	
C-1-1	0.050	0.040	0.025	2.0	NA	
C-1-1	0.020	0.020	0.025	0.8	NA	
C-1-1	0.027	0.023	0.025	1.1	NA	
C-1-1	0.02	0.03	0.025	0.8	NA	
C-1-3	0.180	0.120	0.025	7.2	NA	
C-1-3	0.030	0.010	0.025	1.2	NA	
C-1-3	0.020	0.020	0.025	0.8	NA	
C-1-3	0.020	0.020	0.025	0.8	NA	
C-1-3	0.020	0.020	0.025	0.8	NA	
C-1-3	0.051	0.025	0.025	2.0	NA	
C-1-3	0.03	0.03	0.025	1.2	NA	
C-1-3	0.0199	0.002	0.025	0.8	NA	
C-1-3	0.0235	0.0143	0.025	0.9	NA	
C-2-5	0.200	0.160	0.025	8.0	NA	
C-2-5	0.010	0.010	0.025	0.4	NA	
C-2-5	0.040	0.020	0.025	1.6	NA	
C-2-5	0.020	0.020	0.025	0.8	NA	
C-2-5	0.020	0.020	0.025	0.8	NA	
C-2-5	0.023	0.016	0.025	0.9	NA	
C-3-0	0.190	0.140	0.025	7.6	NA	
C-3-0	0.060	0.030	0.025	2.4	NA	
C-3-0	0.030	0.030	0.025	1.2	NA	
C-3-0	0.020	0.020	0.025	0.8	NA	
C-3-0	0.220	0.030	0.025	8.8	NA	
C-3-0	0.040	0.028	0.025	1.6	NA	
C-3-0	0.04	0.02	0.025	1.7	NA	
C-3-0	0.0217	0.0036	0.025	0.9	NA	
C-3-0	0.0215	0.0084	0.025	0.9	NA	
C-5-0	0.240	0.110	0.025	9.6	NA	
C-5-0	0.080	0.060	0.025	3.2	NA	
C-5-0	0.030	0.030	0.025	1.2	NA	
C-5-0	0.040	0.030	0.025	1.6	NA	
C-5-0	0.020	0.020	0.025	0.8	NA	
C-5-0	0.020	0.020	0.025	0.8	NA	
C-X	0.280	0.150	0.025	11.2	NA	
C-X	0.090	0.080	0.025	3.6	NA	
C-X	0.020	0.020	0.025	0.8	NA	
C-X	0.020	0.030	0.025	0.8	NA	
C-X	0.030	0.020	0.025	1.2	NA	
C-X	0.056	0.020	0.025	2.2	NA	
R-2	0.150	0.040	0.025	6.0	NA	
R-2	0.060	0.040	0.025	2.4	NA	
R-2	0.070	0.030	0.025	2.8	NA	
R-2	0.550	0.110	0.025	22.0	NA	
R-2	0.040	0.020	0.025	1.6	NA	
R-2	0.05	0.03	0.025	2.0	NA	
R-4	0.110	0.110	0.025	4.4	NA	
R-4	0.060	0.020	0.025	2.4	NA	
R-4	0.030	0.030	0.025	1.2	NA	
R-4	0.050	0.020	0.025	2.0	NA	
R-4	0.030	0.030	0.025	1.2	NA	
R-4	0.047	0.027	0.025	1.9	NA	
R-4	0.03	0.02	0.025	1.2	NA	
R-5	0.130	0.050	0.025	5.2	NA	
R-5	0.030	0.020	0.025	1.2	NA	
R-5	0.050	0.040	0.025	2.0	NA	
R-5	0.030	0.020	0.025	1.2	NA	
R-5	0.160	0.180	0.025	6.4	NA	
R-5	0.078	0.030	0.025	3.1	NA	
R-7	0.020	0.020	0.025	0.8	NA	
R-7	0.020	0.020	0.025	0.8	NA	
R-7	0.037	0.025	0.025	1.5	NA	
R-7	0.02	0.02	0.025	0.8	NA	

Total Exceedances	43	NA
Percent Exceedance	65%	NA
Average Exceedance	2.7	NA

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR MERCURY WITH TRANSITION ZONE WATER SAMPLES
DRY SEASON DATA

Station ID	Mercury Total (µg/l)	Mercury Dissolved (µg/l)	Total Objective (0.025 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (NA)	Exceedance Factor DISSOLVED
C-1-1	0.030	0.040	0.025	1.2	NA	
C-1-1	0.02	0.02	0.025	0.8	NA	
C-1-1	0.020	0.020	0.025	0.8	NA	
C-1-1	0.060	0.060	0.025	2.4	NA	
C-1-1	0.030	0.020	0.025	1.2	NA	
C-1-1	0.020	0.020	0.025	0.8	NA	
C-1-1	0.03	0.04	0.025	1.3	NA	
C-1-3	0.100	0.070	0.025	4.0	NA	
C-1-3	0.060	0.020	0.025	2.4	NA	
C-1-3	0.020	0.020	0.025	0.8	NA	
C-1-3	0.200	0.070	0.025	8.0	NA	
C-1-3	0.11	0.02	0.025	4.4	NA	
C-1-3	0.030	0.020	0.025	1.2	NA	
C-1-3	0.06	0.03	0.025	2.3	NA	
C-1-3	0.0521	0.0126	0.025	2.1	NA	
C-2-5	0.03	0.03	0.025	1.2	NA	
C-2-5	0.020	0.020	0.025	0.8	NA	
C-2-5	0.020	0.020	0.025	0.8	NA	
C-2-5	0.100	0.020	0.025	4.0	NA	
C-2-5	0.030	0.020	0.025	1.2	NA	
C-2-5	0.030	0.020	0.025	1.2	NA	
C-3-0	0.050	0.020	0.025	2.0	NA	
C-3-0	0.040	0.020	0.025	1.6	NA	
C-3-0	0.020	0.060	0.025	0.8	NA	
C-3-0	0.150	0.020	0.025	6.0	NA	
C-3-0	0.060	0.020	0.025	2.4	NA	
C-3-0	0.040	0.020	0.025	1.6	NA	
C-3-0	0.07	0.03	0.025	2.9	NA	
C-3-0	0.0797	0.0432	0.025	3.2	NA	
C-5-0	0.020	0.020	0.025	0.8	NA	
C-5-0	0.020	0.020	0.025	0.8	NA	
C-5-0	0.090	0.020	0.025	3.6	NA	
C-5-0	0.120	0.040	0.025	4.8	NA	
C-5-0	0.050	0.020	0.025	2.0	NA	
C-5-0	0.030	0.020	0.025	1.2	NA	
C-X	0.070	0.040	0.025	2.8	NA	
C-X	0.060	0.060	0.025	2.4	NA	
C-X	0.100	0.020	0.025	4.0	NA	
C-X	0.070	0.040	0.025	2.8	NA	
C-X	0.030	0.020	0.025	1.2	NA	
C-X	0.070	0.020	0.025	2.8	NA	
R-2	0.070	0.020	0.025	2.8	NA	
R-2	0.020	0.020	0.025	0.8	NA	
R-2	0.020	0.020	0.025	0.8	NA	
R-2	0.040	0.050	0.025	1.6	NA	
R-2	0.050	0.020	0.025	2.0	NA	
R-2	0.040	0.020	0.025	1.6	NA	
R-4	0.020	0.020	0.025	0.8	NA	
R-4	0.040	0.050	0.025	1.6	NA	
R-4	0.020	0.020	0.025	0.8	NA	
R-4	0.050	0.040	0.025	2.0	NA	
R-4	0.060	0.020	0.025	2.4	NA	
R-4	0.050	0.020	0.025	2.0	NA	
R-4	0.04	0.02	0.025	1.7	NA	
R-5	0.050	0.020	0.025	2.0	NA	
R-5	0.020	0.020	0.025	0.8	NA	
R-5	0.020	0.020	0.025	0.8	NA	
R-5	0.08	0.03	0.025	3.2	NA	
R-5	0.050	0.020	0.025	2.0	NA	
R-5	0.03	0.02	0.025	1.3	NA	
R-7	0.020	0.020	0.025	0.8	NA	
R-7	0.020	0.020	0.025	0.8	NA	
R-7	0.020	0.020	0.025	0.8	NA	
R-7	0.08	0.04	0.025	3.3	NA	

Total Exceedances	46	NA
Percent Exceedance	72%	NA
Average Exceedance	2.0	NA

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR NICKEL WITH TRANSITION ZONE WATER SAMPLES
WET SEASON DATA

Station ID	Nickel Total (µg/l)	Nickel Dissolved (µg/l)	Total Objective (8.3 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (8.2 ug/L)	Exceedance Factor DISSOLVED
C-1-1	8.8	8.2	8.3	1.1	8.2	1.0
C-1-1	6.2	4.1	8.3	0.7	8.2	0.5
C-1-1	7.8	4.6	8.3	0.9	8.2	0.6
C-1-1	13.0	3.2	8.3	1.6	8.2	0.4
C-1-1	7.5	5.6	8.3	0.9	8.2	0.7
C-1-1	15.3	8.4	8.3	1.8	8.2	1.0
C-1-1	11.33	3.93	8.3	1.4	8.2	0.5
C-1-3	38.8	5.0	8.3	4.7	8.2	0.6
C-1-3	13.6	4.4	8.3	1.6	8.2	0.5
C-1-3	10.0	5.2	8.3	1.2	8.2	0.6
C-1-3	11.0	4.5	8.3	1.3	8.2	0.5
C-1-3	8.5	6.6	8.3	1.0	8.2	0.8
C-1-3	17.0	8.8	8.3	2.0	8.2	1.1
C-1-3	41.00	4.97	8.3	4.9	8.2	0.6
C-1-3	9.85	4.12	8.3	1.2	8.2	0.5
C-1-3	9.66	6.82	8.3	1.2	8.2	0.8
C-2-5	28.0	5.3	8.3	3.4	8.2	0.6
C-2-5	11.1	4.7	8.3	1.3	8.2	0.6
C-2-5	25.0	6.1	8.3	3.0	8.2	0.7
C-2-5	12.0	8.6	8.3	1.4	8.2	1.0
C-2-5	19.0	15.0	8.3	2.3	8.2	1.8
C-2-5	17.2	11.9	8.3	2.1	8.2	1.5
C-3-0	35.2	3.3	8.3	4.2	8.2	0.4
C-3-0	12.7	3.4	8.3	1.5	8.2	0.4
C-3-0	22.0	4.4	8.3	2.7	8.2	0.5
C-3-0	11.0	6.1	8.3	1.3	8.2	0.7
C-3-0	11.0	9.1	8.3	1.3	8.2	1.1
C-3-0	18.0	9.2	8.3	2.2	8.2	1.1
C-3-0	10.67	3.83	8.3	1.3	8.2	0.5
C-3-0	10.98	6.63	8.3	1.3	8.2	0.8
C-3-0	14.24	8.8	8.3	1.7	8.2	1.1
C-5-0	18.8	3.3	8.3	2.3	8.2	0.4
C-5-0	10.6	3.4	8.3	1.3	8.2	0.4
C-5-0	8.7	5.0	8.3	1.0	8.2	0.6
C-5-0	11.0	5.8	8.3	1.3	8.2	0.7
C-5-0	8.0	5.4	8.3	1.0	8.2	0.7
C-5-0	13.2	9.3	8.3	1.6	8.2	1.1
C-X	30.4	5.6	8.3	3.7	8.2	0.7
C-X	27.4	3.5	8.3	3.3	8.2	0.4
C-X	18.0	7.3	8.3	2.2	8.2	0.9
C-X	20.0	6.6	8.3	2.4	8.2	0.8
C-X	13.0	7.9	8.3	1.6	8.2	1.0
C-X	32.0	11.3	8.3	3.9	8.2	1.4
R-2	8.8	3.0	8.3	1.1	8.2	0.4
R-2	9.6	2.9	8.3	1.2	8.2	0.4
R-2	7.3	3.1	8.3	0.9	8.2	0.4
R-2	11.0	4.4	8.3	1.3	8.2	0.5
R-2	15.0	4.5	8.3	1.8	8.2	0.5
R-2	17.45	8.30	8.3	2.1	8.2	1.0
R-4	13.2	2.8	8.3	1.6	8.2	0.3
R-4	10.0	3.1	8.3	1.2	8.2	0.4
R-4	10.0	4.8	8.3	1.2	8.2	0.6
R-4	14.0	5.3	8.3	1.7	8.2	0.6
R-4	11.0	4.2	8.3	1.3	8.2	0.5
R-4	20.2	8.2	8.3	2.4	8.2	1.0
R-4	19.33	4.13	8.3	2.3	8.2	0.5
R-5	18.4	3.2	8.3	2.2	8.2	0.4
R-5	16.3	3.0	8.3	2.0	8.2	0.4
R-5	9.9	4.4	8.3	1.2	8.2	0.5
R-5	8.6	5.2	8.3	1.0	8.2	0.6
R-5	9.6	4.3	8.3	1.2	8.2	0.5
R-5	22.9	9.1	8.3	2.8	8.2	1.1
R-7	20.0	5.0	8.3	2.4	8.2	0.6
R-7	11.0	9.2	8.3	1.3	8.2	1.1
R-7	21.1	13.8	8.3	2.5	8.2	1.7
R-7	46.33	7.87	8.3	5.6	8.2	1.0
			Total Exceedances	**61**		**14**
			Percent Exceedance	**92%**		**21%**
			Average Exceedance	**1.9**		**0.7**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR NICKEL WITH TRANSITION ZONE WATER SAMPLES
DRY SEASON DATA

Station ID	Nickel Total (µg/l)	Nickel Dissolved (µg/l)	Total Objective (8.3 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (8.2 ug/L)	Exceedance Factor DISSOLVED
C-1-1	12.0	9.5	8.3	1.4	8.2	1.2
C-1-1	8.75	5.55	8.3	1.1	8.2	0.7
C-1-1	10.8	6.3	8.3	1.3	8.2	0.8
C-1-1	12.0	8.9	8.3	1.4	8.2	1.1
C-1-1	15.0	8.6	8.3	1.8	8.2	1.0
C-1-1	13.0	5.4	8.3	1.6	8.2	0.7
C-1-1	11.33	5.13	8.3	1.4	8.2	0.6
C-1-3	12.0	8.9	8.3	1.4	8.2	1.1
C-1-3	7.2	4.7	8.3	0.9	8.2	0.6
C-1-3	11.7	4.3	8.3	1.4	8.2	0.5
C-1-3	30.0	8.4	8.3	3.6	8.2	1.0
C-1-3	23.87	7.03	8.3	2.9	8.2	0.9
C-1-3	12.0	5.2	8.3	1.4	8.2	0.6
C-1-3	25.33	7.67	8.3	3.1	8.2	0.9
C-1-3	10.23	5.45	8.3	1.2	8.2	0.7
C-2-5	15.50	7.05	8.3	1.9	8.2	0.9
C-2-5	10.0	7.6	8.3	1.2	8.2	0.9
C-2-5	13.9	4.4	8.3	1.7	8.2	0.5
C-2-5	28.0	12.0	8.3	3.4	8.2	1.5
C-2-5	24.0	11.0	8.3	2.9	8.2	1.3
C-2-5	13.0	9.0	8.3	1.6	8.2	1.1
C-3-0	14.0	8.1	8.3	1.7	8.2	1.0
C-3-0	17.0	5.6	8.3	2.0	8.2	0.7
C-3-0	11.9	6.9	8.3	1.4	8.2	0.8
C-3-0	28.0	11.0	8.3	3.4	8.2	1.3
C-3-0	18.0	7.6	8.3	2.2	8.2	0.9
C-3-0	38.0	5.6	8.3	4.6	8.2	0.7
C-3-0	17.33	6.80	8.3	2.1	8.2	0.8
C-3-0	36.03	7.22	8.3	4.3	8.2	0.9
C-5-0	13.0	5.9	8.3	1.6	8.2	0.7
C-5-0	5.9	4.0	8.3	0.7	8.2	0.5
C-5-0	9.0	5.0	8.3	1.1	8.2	0.6
C-5-0	23.0	7.0	8.3	2.8	8.2	0.9
C-5-0	16.0	8.5	8.3	1.9	8.2	1.0
C-5-0	10.0	5.0	8.3	1.2	8.2	0.6
C-X	20.0	7.5	8.3	2.4	8.2	0.9
C-X	20.0	4.1	8.3	2.4	8.2	0.5
C-X	22.5	6.4	8.3	2.7	8.2	0.8
C-X	24.0	12.0	8.3	2.9	8.2	1.5
C-X	25.0	12.0	8.3	3.0	8.2	1.5
C-X	30.0	3.5	8.3	3.6	8.2	0.4
R-2	19.0	5.9	8.3	2.3	8.2	0.7
R-2	6.9	4.2	8.3	0.8	8.2	0.5
R-2	7.4	4.1	8.3	0.9	8.2	0.5
R-2	20.0	8.4	8.3	2.4	8.2	1.0
R-2	19.0	7.0	8.3	2.3	8.2	0.9
R-2	27.0	5.7	8.3	3.3	8.2	0.7
R-4	18.0	6.3	8.3	2.2	8.2	0.8
R-4	7.6	3.3	8.3	0.9	8.2	0.4
R-4	10.1	3.2	8.3	1.2	8.2	0.4
R-4	19.0	9.0	8.3	2.3	8.2	1.1
R-4	31.0	7.5	8.3	3.7	8.2	0.9
R-4	40.0	5.8	8.3	4.8	8.2	0.7
R-4	21.00	5.10	8.3	2.5	8.2	0.6
R-5	17.0	5.2	8.3	2.0	8.2	0.6
R-5	8.3	3.7	8.3	1.0	8.2	0.5
R-5	11.5	3.0	8.3	1.4	8.2	0.4
R-5	20.00	8.60	8.3	2.4	8.2	1.0
R-5	23.0	6.9	8.3	2.8	8.2	0.8
R-5	11.03	4.57	8.3	1.3	8.2	0.6
R-7	66.0	9.4	8.3	8.0	8.2	1.1
R-7	19.0	11.0	8.3	2.3	8.2	1.3
R-7	15.0	5.8	8.3	1.8	8.2	0.7
R-7	26.33	9.17	8.3	3.2	8.2	1.1

Total Exceedances	58	18
Percent Exceedance	91%	28%
Average Exceedance	2.2	0.8

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR SELENIUM WITH TRANSITION ZONE WATER SAMPLES
WET SEASON DATA

Station ID	Selenium Total (µg/l)	Selenium Dissolved (µg/l)	Total Objective (5 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (71 ug/L)	Exceedance Factor DISSOLVED
C-1-1	0.3	0.4	5.0	0.1	71.0	0.0
C-1-1	0.2	0.2	5.0	0.0	71.0	0.0
C-1-1	0.2	0.2	5.0	0.0	71.0	0.0
C-1-1	0.1	0.1	5.0	0.0	71.0	0.0
C-1-1	0.2	0.2	5.0	0.0	71.0	0.0
C-1-1	0.2	0.2	5.0	0.0	71.0	0.0
C-1-1	1.07	0.20	5.0	0.2	71.0	0.0
C-1-3	0.4	0.3	5.0	0.1	71.0	0.0
C-1-3	0.2	0.2	5.0	0.0	71.0	0.0
C-1-3	0.3	0.2	5.0	0.1	71.0	0.0
C-1-3	0.2	0.2	5.0	0.0	71.0	0.0
C-1-3	0.2	0.2	5.0	0.0	71.0	0.0
C-1-3	0.2	0.1	5.0	0.0	71.0	0.0
C-1-3	0.50	0.30	5.0	0.1	71.0	0.0
C-1-3	0.4	0.36	5.0	0.1	71.0	0.0
C-1-3	0.43	0.46	5.0	0.1	71.0	0.0
C-2-5	0.3	0.2	5.0	0.1	71.0	0.0
C-2-5	0.6	0.3	5.0	0.1	71.0	0.0
C-2-5	0.3	0.2	5.0	0.1	71.0	0.0
C-2-5	0.2	0.2	5.0	0.0	71.0	0.0
C-2-5	0.2	0.2	5.0	0.0	71.0	0.0
C-2-5	0.2	0.1	5.0	0.0	71.0	0.0
C-3-0	0.1	0.2	5.0	0.0	71.0	0.0
C-3-0	0.3	0.2	5.0	0.1	71.0	0.0
C-3-0	0.4	0.2	5.0	0.1	71.0	0.0
C-3-0	0.2	0.1	5.0	0.0	71.0	0.0
C-3-0	0.2	0.2	5.0	0.0	71.0	0.0
C-3-0	0.2	0.2	5.0	0.0	71.0	0.0
C-3-0	0.30	0.23	5.0	0.1	71.0	0.0
C-3-0	0.59	0.58	5.0	0.1	71.0	0.0
C-3-0	0.45	0.46	5.0	0.1	71.0	0.0
C-5-0	0.3	0.2	5.0	0.1	71.0	0.0
C-5-0	0.3	0.3	5.0	0.1	71.0	0.0
C-5-0	0.2	0.2	5.0	0.0	71.0	0.0
C-5-0	0.2	0.2	5.0	0.0	71.0	0.0
C-5-0	0.2	0.2	5.0	0.0	71.0	0.0
C-5-0	0.2	0.1	5.0	0.0	71.0	0.0
C-X	0.7	0.3	5.0	0.1	71.0	0.0
C-X	0.4	0.3	5.0	0.1	71.0	0.0
C-X	0.3	0.2	5.0	0.1	71.0	0.0
C-X	0.2	0.1	5.0	0.0	71.0	0.0
C-X	0.2	0.2	5.0	0.0	71.0	0.0
C-X	0.2	0.1	5.0	0.0	71.0	0.0
R-2	0.2	0.3	5.0	0.0	71.0	0.0
R-2	0.2	0.2	5.0	0.0	71.0	0.0
R-2	0.2	0.2	5.0	0.0	71.0	0.0
R-2	0.1	0.2	5.0	0.0	71.0	0.0
R-2	0.2	0.1	5.0	0.0	71.0	0.0
R-2	0.10	0.10	5.0	0.0	71.0	0.0
R-4	0.2	0.3	5.0	0.0	71.0	0.0
R-4	0.3	0.3	5.0	0.1	71.0	0.0
R-4	0.2	0.2	5.0	0.0	71.0	0.0
R-4	0.2	0.1	5.0	0.0	71.0	0.0
R-4	0.2	0.2	5.0	0.0	71.0	0.0
R-4	0.1	0.1	5.0	0.0	71.0	0.0
R-4	0.33	0.30	5.0	0.1	71.0	0.0
R-5	0.2	0.2	5.0	0.0	71.0	0.0
R-5	0.3	0.3	5.0	0.1	71.0	0.0
R-5	0.2	0.2	5.0	0.0	71.0	0.0
R-5	0.1	0.2	5.0	0.0	71.0	0.0
R-5	0.1	0.1	5.0	0.0	71.0	0.0
R-5	0.1	0.1	5.0	0.0	71.0	0.0
R-7	0.3	0.2	5.0	0.1	71.0	0.0
R-7	0.2	0.2	5.0	0.0	71.0	0.0
R-7	0.2	0.2	5.0	0.0	71.0	0.0
R-7	0.97	0.27	5.0	0.2	71.0	0.0

Total Exceedances	0	0
Percent Exceedance	0%	0%
Average Exceedance	0.1	0.0

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR SELENIUM WITH TRANSITION ZONE WATER SAMPLES
DRY SEASON DATA

Station ID	Selenium Total (µg/l)	Selenium Dissolved (µg/l)	Total Objective (5 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (71 ug/L)	Exceedance Factor DISSOLVED
C-1-1	0.2	0.3	5.0	0.0	71.0	0.0
C-1-1	0.20	0.20	5.0	0.0	71.0	0.0
C-1-1	0.3	0.2	5.0	0.1	71.0	0.0
C-1-1	0.3	0.1	5.0	0.1	71.0	0.0
C-1-1	0.3	0.3	5.0	0.1	71.0	0.0
C-1-1	0.3	0.2	5.0	0.1	71.0	0.0
C-1-1	0.47	0.40	5.0	0.1	71.0	0.0
C-1-3	0.3	0.2	5.0	0.1	71.0	0.0
C-1-3	0.2	0.2	5.0	0.0	71.0	0.0
C-1-3	0.2	0.3	5.0	0.0	71.0	0.0
C-1-3	0.3	0.2	5.0	0.1	71.0	0.0
C-1-3	0.23	0.17	5.0	0.0	71.0	0.0
C-1-3	0.2	0.3	5.0	0.0	71.0	0.0
C-1-3	0.30	0.37	5.0	0.1	71.0	0.0
C-1-3	0.7	0.79	5.0	0.1	71.0	0.0
C-2-5	0.20	0.20	5.0	0.0	71.0	0.0
C-2-5	0.2	0.2	5.0	0.0	71.0	0.0
C-2-5	0.2	0.3	5.0	0.0	71.0	0.0
C-2-5	0.4	0.3	5.0	0.1	71.0	0.0
C-2-5	0.3	0.2	5.0	0.1	71.0	0.0
C-2-5	0.2	0.4	5.0	0.0	71.0	0.0
C-3-0	0.2	0.2	5.0	0.0	71.0	0.0
C-3-0	0.2	0.1	5.0	0.0	71.0	0.0
C-3-0	0.3	0.2	5.0	0.1	71.0	0.0
C-3-0	0.4	0.3	5.0	0.1	71.0	0.0
C-3-0	0.4	0.2	5.0	0.1	71.0	0.0
C-3-0	0.2	0.2	5.0	0.0	71.0	0.0
C-3-0	0.27	0.20	5.0	0.1	71.0	0.0
C-3-0	0.41	0.24	5.0	0.1	71.0	0.0
C-5-0	0.2	0.2	5.0	0.0	71.0	0.0
C-5-0	0.2	0.1	5.0	0.0	71.0	0.0
C-5-0	0.2	0.2	5.0	0.0	71.0	0.0
C-5-0	0.4	0.2	5.0	0.1	71.0	0.0
C-5-0	0.1	0.1	5.0	0.0	71.0	0.0
C-5-0	0.3	0.2	5.0	0.1	71.0	0.0
C-X	0.2	0.1	5.0	0.0	71.0	0.0
C-X	0.3	0.2	5.0	0.1	71.0	0.0
C-X	0.4	0.2	5.0	0.1	71.0	0.0
C-X	0.4	0.3	5.0	0.1	71.0	0.0
C-X	0.3	0.2	5.0	0.1	71.0	0.0
C-X	0.3	0.2	5.0	0.1	71.0	0.0
R-2	0.1	0.1	5.0	0.0	71.0	0.0
R-2	0.2	0.1	5.0	0.0	71.0	0.0
R-2	0.2	0.2	5.0	0.0	71.0	0.0
R-2	0.3	0.3	5.0	0.1	71.0	0.0
R-2	0.2	0.1	5.0	0.0	71.0	0.0
R-2	0.3	0.2	5.0	0.1	71.0	0.0
R-4	0.2	0.2	5.0	0.0	71.0	0.0
R-4	0.2	0.2	5.0	0.0	71.0	0.0
R-4	0.1	0.2	5.0	0.0	71.0	0.0
R-4	0.3	0.1	5.0	0.1	71.0	0.0
R-4	0.3	0.2	5.0	0.1	71.0	0.0
R-4	0.4	0.2	5.0	0.1	71.0	0.0
R-4	0.23	0.23	5.0	0.0	71.0	0.0
R-5	0.2	0.3	5.0	0.0	71.0	0.0
R-5	0.1	0.1	5.0	0.0	71.0	0.0
R-5	0.1	0.1	5.0	0.0	71.0	0.0
R-5	0.30	0.15	5.0	0.1	71.0	0.0
R-5	0.2	0.1	5.0	0.0	71.0	0.0
R-5	0.27	0.17	5.0	0.1	71.0	0.0
R-7	1.6	1.5	5.0	0.3	71.0	0.0
R-7	0.4	0.1	5.0	0.1	71.0	0.0
R-7	0.8	0.8	5.0	0.2	71.0	0.0
R-7	0.60	0.67	5.0	0.1	71.0	0.0

Total Exceedances	**0**	**0**
Percent Exceedance	**0%**	**0%**
Average Exceedance	**0.1**	**0.0**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR SILVER WITH TRANSITION ZONE WATER SAMPLES
WET SEASON DATA

Station ID	Silver Total (µg/l)	Silver Dissolved (µg/l)	Total Objective (2.3 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (NA)	Exceedance Factor DISSOLVED
C-1-1	0.22	0.190	5.0	0.0	NA	
C-1-1	0.18	0.040	5.0	0.0	NA	
C-1-1	0.19	0.150	5.0	0.0	NA	
C-1-1	0.16	0.030	5.0	0.0	NA	
C-1-1	0.05	0.030	5.0	0.0	NA	
C-1-1	0.03	0.020	5.0	0.0	NA	
C-1-1	0.06	-	5.0	0.0	NA	
C-1-3	1.70	0.200	5.0	0.3	NA	
C-1-3	0.08	0.080	5.0	0.0	NA	
C-1-3	0.38	0.300	5.0	0.1	NA	
C-1-3	0.09	0.020	5.0	0.0	NA	
C-1-3	0.03	0.020	5.0	0.0	NA	
C-1-3	0.03	0.020	5.0	0.0	NA	
C-1-3	0.15	0.03	5.0	0.0	NA	
C-1-3	0.0441	0.0014	5.0	0.0	NA	
C-1-3	0.1198	0.0341	5.0	0.0	NA	
C-2-5	1.61	0.240	5.0	0.3	NA	
C-2-5	0.67	0.080	5.0	0.1	NA	
C-2-5	1.00	0.250	5.0	0.2	NA	
C-2-5	0.04	0.020	5.0	0.0	NA	
C-2-5	0.19	0.050	5.0	0.0	NA	
C-2-5	0.04	0.020	5.0	0.0	NA	
C-3-0	1.52	0.330	5.0	0.3	NA	
C-3-0	0.69	0.180	5.0	0.1	NA	
C-3-0	0.87	0.320	5.0	0.2	NA	
C-3-0	0.04	0.020	5.0	0.0	NA	
C-3-0	0.03	0.070	5.0	0.0	NA	
C-3-0	0.04	0.030	5.0	0.0	NA	
C-3-0	0.04	0.02	5.0	0.0	NA	
C-3-0	0.0468	0.0012	5.0	0.0	NA	
C-3-0	0.0494	0.0121	5.0	0.0	NA	
C-5-0	0.94	0.430	5.0	0.2	NA	
C-5-0	0.85	0.060	5.0	0.2	NA	
C-5-0	0.31	0.270	5.0	0.1	NA	
C-5-0	0.04	0.020	5.0	0.0	NA	
C-5-0	0.04	0.020	5.0	0.0	NA	
C-5-0	0.01	0.020	5.0	0.0	NA	
C-X	0.24	0.260	5.0	0.0	NA	
C-X	0.19	0.119	5.0	0.0	NA	
C-X	0.65	0.200	5.0	0.1	NA	
C-X	0.07	0.020	5.0	0.0	NA	
C-X	0.04	0.020	5.0	0.0	NA	
C-X	0.05	0.020	5.0	0.0	NA	
R-2	0.95	0.300	5.0	0.2	NA	
R-2	0.85	0.150	5.0	0.2	NA	
R-2	0.51	0.170	5.0	0.1	NA	
R-2	0.04	0.030	5.0	0.0	NA	
R-2	0.05	0.030	5.0	0.0	NA	
R-2	0.02	0.02	5.0	0.0	NA	
R-4	1.02	0.450	5.0	0.2	NA	
R-4	0.64	0.240	5.0	0.1	NA	
R-4	0.58	0.170	5.0	0.1	NA	
R-4	0.03	0.030	5.0	0.0	NA	
R-4	0.05	0.020	5.0	0.0	NA	
R-4	0.02	0.020	5.0	0.0	NA	
R-4	0.10	0.02	5.0	0.0	NA	
R-5	1.25	0.260	5.0	0.3	NA	
R-5	0.83	0.190	5.0	0.2	NA	
R-5	0.46	0.220	5.0	0.1	NA	
R-5	0.03	0.030	5.0	0.0	NA	
R-5	0.02	0.020	5.0	0.0	NA	
R-5	0.04	0.020	5.0	0.0	NA	
R-7	0.08	0.020	5.0	0.0	NA	
R-7	0.01	0.020	5.0	0.0	NA	
R-7	0.05	0.020	5.0	0.0	NA	
R-7	0.05	0.02	5.0	0.0	NA	

Total Exceedances	**0**	**NA**
Percent Exceedance	**0%**	**NA**
Average Exceedance	**0.1**	**NA**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR SILVER WITH TRANSITION ZONE WATER SAMPLES
DRY SEASON DATA

Station ID	Silver Total (µg/l)	Silver Dissolved (µg/l)	Total Objective (2.3 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (NA)	Exceedance Factor DISSOLVED
C-1-1	0.30	0.300	5.0	0.1	NA	
C-1-1	0.07	0.12	5.0	0.0	NA	
C-1-1	0.26	0.370	5.0	0.1	NA	
C-1-1	0.18	0.020	5.0	0.0	NA	
C-1-1	0.19	0.150	5.0	0.0	NA	
C-1-1	0.49	0.330	5.0	0.1	NA	
C-1-1	0.05	0.02	5.0	0.0	NA	
C-1-3	0.26	0.260	5.0	0.1	NA	
C-1-3	0.42	0.160	5.0	0.1	NA	
C-1-3	0.84	0.250	5.0	0.2	NA	
C-1-3	0.32	0.030	5.0	0.1	NA	
C-1-3	0.31	0.11	5.0	0.1	NA	
C-1-3	0.77	0.200	5.0	0.2	NA	
C-1-3	0.10	0.02	5.0	0.0	NA	
C-1-3	0.0277	0.003	5.0	0.0	NA	
C-2-5	0.14	0.17	5.0	0.0	NA	
C-2-5	0.61	0.050	5.0	0.1	NA	
C-2-5	0.43	0.060	5.0	0.1	NA	
C-2-5	0.31	0.030	5.0	0.1	NA	
C-2-5	0.28	0.070	5.0	0.1	NA	
C-2-5	0.28	0.260	5.0	0.1	NA	
C-3-0	0.14	0.140	5.0	0.0	NA	
C-3-0	0.38	0.240	5.0	0.1	NA	
C-3-0	1.38	0.080	5.0	0.3	NA	
C-3-0	0.25	0.080	5.0	0.1	NA	
C-3-0	0.28	0.090	5.0	0.1	NA	
C-3-0	1.40	0.700	5.0	0.3	NA	
C-3-0	0.07	0.02	5.0	0.0	NA	
C-3-0	0.1085	0.0029	5.0	0.0	NA	
C-5-0	0.22	0.220	5.0	0.0	NA	
C-5-0	0.21	0.110	5.0	0.0	NA	
C-5-0	0.45	0.240	5.0	0.1	NA	
C-5-0	0.30	0.050	5.0	0.1	NA	
C-5-0	0.35	0.160	5.0	0.1	NA	
C-5-0	0.69	0.200	5.0	0.1	NA	
C-X	0.14	0.140	5.0	0.0	NA	
C-X	0.95	0.100	5.0	0.2	NA	
C-X	1.41	0.120	5.0	0.3	NA	
C-X	0.41	0.020	5.0	0.1	NA	
C-X	0.30	0.140	5.0	0.1	NA	
C-X	1.10	0.230	5.0	0.2	NA	
R-2	0.37	0.370	5.0	0.1	NA	
R-2	0.53	0.060	5.0	0.1	NA	
R-2	0.47	0.240	5.0	0.1	NA	
R-2	0.30	0.020	5.0	0.1	NA	
R-2	0.35	0.160	5.0	0.1	NA	
R-2	1.80	0.410	5.0	0.4	NA	
R-4	0.22	0.220	5.0	0.0	NA	
R-4	0.46	0.160	5.0	0.1	NA	
R-4	0.28	0.200	5.0	0.1	NA	
R-4	0.22	0.040	5.0	0.0	NA	
R-4	0.45	0.170	5.0	0.1	NA	
R-4	0.54	0.150	5.0	0.1	NA	
R-4	0.08	0.02	5.0	0.0	NA	
R-5	0.26	0.260	5.0	0.1	NA	
R-5	0.57	0.150	5.0	0.1	NA	
R-5	0.34	0.180	5.0	0.1	NA	
R-5	0.16	0.03	5.0	0.0	NA	
R-5	0.33	0.140	5.0	0.1	NA	
R-5	0.47	0.15	5.0	0.1	NA	
R-7	0.32	0.040	5.0	0.1	NA	
R-7	0.28	0.190	5.0	0.1	NA	
R-7	0.18	0.200	5.0	0.0	NA	
R-7	0.16	0.02	5.0	0.0	NA	

Total Exceedances	**0**	**NA**
Percent Exceedance	**0%**	**NA**
Average Exceedance	**0.1**	**NA**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR ZINC WITH TRANSITION ZONE WATER SAMPLES
WET SEASON DATA

Station ID	Zinc Total (µg/l)	Zinc Dissolved (µg/l)	Total Objective (86 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (81 ug/L)	Exceedance Factor DISSOLVED
C-1-1	19.5	14.6	86.0	0.2	81.0	0.2
C-1-1	40.1	32.1	86.0	0.5	81.0	0.4
C-1-1	42.0	52.0	86.0	0.5	81.0	0.6
C-1-1	59.0	5.9	86.0	0.7	81.0	0.1
C-1-1	28.0	10.0	86.0	0.3	81.0	0.1
C-1-1	16.4	8.8	86.0	0.2	81.0	0.1
C-1-1	16.00	3.13	86.0	0.2	81.0	0.0
C-1-3	50.7	9.4	86.0	0.6	81.0	0.1
C-1-3	29.6	8.2	86.0	0.3	81.0	0.1
C-1-3	29.0	14.0	86.0	0.3	81.0	0.2
C-1-3	32.0	0.7	86.0	0.4	81.0	0.0
C-1-3	28.0	7.1	86.0	0.3	81.0	0.1
C-1-3	19.1	9.2	86.0	0.2	81.0	0.1
C-1-3	38.00	1.93	86.0	0.4	81.0	0.0
C-1-3	27.66	9.97	86.0	0.3	81.0	0.1
C-1-3	17.26	11.17	86.0	0.2	81.0	0.1
C-2-5	55.6	14.4	86.0	0.6	81.0	0.2
C-2-5	23.4	17.2	86.0	0.3	81.0	0.2
C-2-5	64.0	28.0	86.0	0.7	81.0	0.3
C-2-5	29.0	21.0	86.0	0.3	81.0	0.3
C-2-5	58.0	44.0	86.0	0.7	81.0	0.5
C-2-5	18.8	16.8	86.0	0.2	81.0	0.2
C-3-0	25.8	4.0	86.0	0.3	81.0	0.0
C-3-0	12.3	7.0	86.0	0.1	81.0	0.1
C-3-0	52.0	6.2	86.0	0.6	81.0	0.1
C-3-0	17.0	7.6	86.0	0.2	81.0	0.1
C-3-0	27.0	17.0	86.0	0.3	81.0	0.2
C-3-0	17.0	6.8	86.0	0.2	81.0	0.1
C-3-0	4.77	1.10	86.0	0.1	81.0	0.0
C-3-0	43.4	24.89	86.0	0.5	81.0	0.3
C-3-0	20.94	12.47	86.0	0.2	81.0	0.2
C-5-0	25.7	10.8	86.0	0.3	81.0	0.1
C-5-0	71.0	4.4	86.0	0.8	81.0	0.1
C-5-0	11.0	7.1	86.0	0.1	81.0	0.1
C-5-0	14.0	5.1	86.0	0.2	81.0	0.1
C-5-0	12.0	6.9	86.0	0.1	81.0	0.1
C-5-0	10.3	4.8	86.0	0.1	81.0	0.1
C-X	61.8	16.9	86.0	0.7	81.0	0.2
C-X	50.0	8.8	86.0	0.6	81.0	0.1
C-X	60.0	34.0	86.0	0.7	81.0	0.4
C-X	50.0	16.0	86.0	0.6	81.0	0.2
C-X	19.0	9.7	86.0	0.2	81.0	0.1
C-X	27.2	15.6	86.0	0.3	81.0	0.2
R-2	13.2	5.9	86.0	0.2	81.0	0.1
R-2	16.4	4.4	86.0	0.2	81.0	0.1
R-2	13.0	10.0	86.0	0.2	81.0	0.1
R-2	14.0	3.5	86.0	0.2	81.0	0.0
R-2	23.0	3.2	86.0	0.3	81.0	0.0
R-2	21.40	4.10	86.0	0.2	81.0	0.1
R-4	19.6	4.5	86.0	0.2	81.0	0.1
R-4	14.6	4.3	86.0	0.2	81.0	0.1
R-4	37.0	28.0	86.0	0.4	81.0	0.3
R-4	20.0	5.0	86.0	0.2	81.0	0.1
R-4	14.0	2.2	86.0	0.2	81.0	0.0
R-4	23.7	7.2	86.0	0.3	81.0	0.1
R-4	4.63	1.33	86.0	0.1	81.0	0.0
R-5	26.5	4.9	86.0	0.3	81.0	0.1
R-5	23.4	3.5	86.0	0.3	81.0	0.0
R-5	23.0	4.1	86.0	0.3	81.0	0.1
R-5	12.0	5.7	86.0	0.1	81.0	0.1
R-5	28.0	3.3	86.0	0.3	81.0	0.0
R-5	31.6	3.6	86.0	0.4	81.0	0.0
R-7	70.0	13.0	86.0	0.8	81.0	0.2
R-7	300.0	26.0	86.0	3.5	81.0	0.3
R-7	75.9	25.6	86.0	0.9	81.0	0.3
R-7	40.67	1.90	86.0	0.5	81.0	0.0

Total Exceedances	1	0
Percent Exceedance	2%	0%
Average Exceedance	0.4	0.1

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES (CHRONIC) FOR ZINC WITH TRANSITION ZONE WATER SAMPLES
DRY SEASON DATA

Station ID	Zinc Total (µg/l)	Zinc Dissolved (µg/l)	Total Objective (86 ug/L)	Exceedance Factor TOTAL	Dissolved Objective (81 ug/L)	Exceedance Factor DISSOLVED
C-1-1	17.8	9.5	86.0	0.2	81.0	0.1
C-1-1	26.00	15.80	86.0	0.3	81.0	0.2
C-1-1	19.5	13.6	86.0	0.2	81.0	0.2
C-1-1	21.0	23.0	86.0	0.2	81.0	0.3
C-1-1	19.0	5.7	86.0	0.2	81.0	0.1
C-1-1	16.0	8.9	86.0	0.2	81.0	0.1
C-1-1	18.00	4.10	86.0	0.2	81.0	0.1
C-1-3	8.2	4.0	86.0	0.1	81.0	0.0
C-1-3	8.9	4.9	86.0	0.1	81.0	0.1
C-1-3	16.9	8.1	86.0	0.2	81.0	0.1
C-1-3	20.0	6.1	86.0	0.2	81.0	0.1
C-1-3	32.33	5.90	86.0	0.4	81.0	0.1
C-1-3	18.0	3.2	86.0	0.2	81.0	0.0
C-1-3	11.63	2.53	86.0	0.1	81.0	0.0
C-1-3	11.74	4.22	86.0	0.1	81.0	0.1
C-2-5	15.50	0.85	86.0	0.2	81.0	0.0
C-2-5	23.0	11.0	86.0	0.3	81.0	0.1
C-2-5	24.0	20.2	86.0	0.3	81.0	0.2
C-2-5	13.0	11.0	86.0	0.2	81.0	0.1
C-2-5	33.0	6.3	86.0	0.4	81.0	0.1
C-2-5	16.0	7.6	86.0	0.2	81.0	0.1
C-3-0	15.0	3.2	86.0	0.2	81.0	0.0
C-3-0	14.0	4.5	86.0	0.2	81.0	0.1
C-3-0	21.0	14.2	86.0	0.2	81.0	0.2
C-3-0	17.0	20.0	86.0	0.2	81.0	0.2
C-3-0	21.0	3.1	86.0	0.2	81.0	0.0
C-3-0	78.0	2.2	86.0	0.9	81.0	0.0
C-3-0	16.33	1.90	86.0	0.2	81.0	0.0
C-3-0	34.45	5.08	86.0	0.4	81.0	0.1
C-5-0	9.4	2.6	86.0	0.1	81.0	0.0
C-5-0	6.6	3.4	86.0	0.1	81.0	0.0
C-5-0	12.2	7.4	86.0	0.1	81.0	0.1
C-5-0	23.0	2.2	86.0	0.3	81.0	0.0
C-5-0	14.0	2.3	86.0	0.2	81.0	0.0
C-5-0	14.0	3.9	86.0	0.2	81.0	0.0
C-X	21.0	1.0	86.0	0.2	81.0	0.0
C-X	25.0	1.7	86.0	0.3	81.0	0.0
C-X	53.0	11.2	86.0	0.6	81.0	0.1
C-X	12.0	12.0	86.0	0.1	81.0	0.1
C-X	34.0	9.2	86.0	0.4	81.0	0.1
C-X	48.0	3.5	86.0	0.6	81.0	0.0
R-2	22.0	2.6	86.0	0.3	81.0	0.0
R-2	9.9	6.5	86.0	0.1	81.0	0.1
R-2	2.7	4.2	86.0	0.0	81.0	0.1
R-2	12.0	2.4	86.0	0.1	81.0	0.0
R-2	22.0	1.9	86.0	0.3	81.0	0.0
R-2	44.0	1.9	86.0	0.5	81.0	0.0
R-4	3.4	4.5	86.0	0.0	81.0	0.1
R-4	11.0	3.0	86.0	0.1	81.0	0.0
R-4	8.7	4.5	86.0	0.1	81.0	0.1
R-4	11.0	2.8	86.0	0.1	81.0	0.0
R-4	39.0	2.2	86.0	0.5	81.0	0.0
R-4	69.0	2.1	86.0	0.8	81.0	0.0
R-4	41.33	1.97	86.0	0.5	81.0	0.0
R-5	14.0	1.2	86.0	0.2	81.0	0.0
R-5	12.0	3.8	86.0	0.1	81.0	0.0
R-5	10.4	6.2	86.0	0.1	81.0	0.1
R-5	7.95	2.05	86.0	0.1	81.0	0.0
R-5	28.0	1.8	86.0	0.3	81.0	0.0
R-5	33.67	10.67	86.0	0.4	81.0	0.1
R-7	115.0	1.3	86.0	1.3	81.0	0.0
R-7	22.0	9.0	86.0	0.3	81.0	0.1
R-7	22.0	2.6	86.0	0.3	81.0	0.0
R-7	14.67	6.20	86.0	0.2	81.0	0.1

Total Exceedances	**1**		**0**
Percent Exceedance	**2%**		**0%**
Average Exceedance	**0.3**		**0.1**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR CADMIUM WITH WET WEATHER DATA

Station ID	Estimated Hardness (d) as CaCO3 [mg/l]	Cadmium Total EMC (a) DL = 0.2 (b) [µg/l]	Cadmium Dissolved EMC DL = 0.2 [µg/l]	ACUTE			
				Total Objective A = 1.128 B = -3.838 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 1.128 B = -3.838 [µg/l]	Exceedance Factor (c) DISSOLVED
C-1-0	160	0.17	0.13	6.6	0.0	6.1	0.0
C-1-0	160	0.07	0.10	6.6	0.0	6.1	0.0
C-1-0	160	0.08	0.08	6.6	0.0	6.1	0.0
C-1-0	160	0.05	0.06	6.6	0.0	6.1	0.0
C-1-0	160	0.12	0.12	6.6	0.0	6.1	0.0
C-1-0	160	0.14	0.12	6.6	0.0	6.1	0.0
C-1-0	160	0.12	0.11	6.6	0.0	6.1	0.0
C-2-0	171	0.08	0.05	7.1	0.0	6.6	0.0
C-2-0	171	0.04	0.06	7.1	0.0	6.6	0.0
C-2-0	171	0.05	0.04	7.1	0.0	6.6	0.0
C-2-0	171	0.15	0.08	7.1	0.0	6.6	0.0
C-2-0	171	0.07	0.04	7.1	0.0	6.6	0.0
C-2-0	171	0.09	0.16	7.1	0.0	6.6	0.0

Total Exceedances:	0	0
Percent Exceedance:	0%	0%
Average Exceedance Factor:	0.01	0.01

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
exp(A*ln(TH)+B)*(1.136672-(0.041838*ln(TH)), dissolved, from EPA Federal Register 40 CFR Part 131 May 4, 1995
d Hardness values taken from EOA, 1991

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR CHROMIUM WITH WET WEATHER DATA

Station ID/ Storm Eve	Estimated Hardness (d) as CaCO3 [mg/l]	Chromium Total EMC (a) DL = 1.0 (b) [µg/l]	Chromium Dissolved EMC DL = 1.0 [µg/l]	ACUTE			
				Total Objective A = 0.819 B = 3.688 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 0.819 B = 3.688 [µg/l]	Exceedance Factor (c) DISSOLVED
C-1-0	160	0.10	0.10	2552	0.0	2552	0.0
C-1-0	160	0.10	0.10	2552	0.0	2552	0.0
C-1-0	160	0.06	0.10	2552	0.0	2552	0.0
C-1-0	160	0.10	0.10	2552	0.0	2552	0.0
C-1-0	160	0.20	0.50	2552	0.0	2552	0.0
C-1-0	160	0.10	0.10	2552	0.0	2552	0.0
C-1-0	160	4.13	0.97	2552	0.0	2552	0.0
C-2-0	171	0.70	0.10	2695	0.0	2695	0.0
C-2-0	171	0.70	0.10	2695	0.0	2695	0.0
C-2-0	171	0.30	0.10	2695	0.0	2695	0.0
C-2-0	171	0.80	0.10	2695	0.0	2695	0.0
C-2-0	171	0.20	0.10	2695	0.0	2695	0.0
C-2-0	171	0.09	0.10	2695	0.0	2695	0.0

Total Exceedances:	0	0
Percent Exceedance:	0%	0%
Average Exceedance Factor:	0.00	0.00

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
0.316*exp(A*ln(TH)+B), for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995
d Hardness values taken from EOA, 1991

Water Quality Objectives based on Chromium 3+

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR COPPER WITH WET WEATHER DATA

Station ID/ Storm Event Station ID	Estimated Hardness (d) as CaCO3 [mg/l]	Copper Total EMC (a) DL = 1.0 (b) [µg/l]	Copper Dissolved EMC DL = 1.0 [µg/l]	ACUTE Total Objective A = 0.9422 B = -1.464 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 0.9422 B = -1.464 [µg/l]	Exceedance Factor (c) DISSOLVED
C-1-0	160	5.40	5.65	27.6	0.2	26.5	0.2
C-1-0	160	5.80	4.90	27.6	0.2	26.5	0.2
C-1-0	160	5.7	6.4	27.6	0.2	26.5	0.2
C-1-0	160	4.2	3.4	27.6	0.2	26.5	0.1
C-1-0	160	6.5	5.6	27.6	0.2	26.5	0.2
C-1-0	160	6.4	4.4	27.6	0.2	26.5	0.2
C-1-0	160	7.17	4.53	27.6	0.3	26.5	0.2
C-2-0	171	2.8	1.4	29.4	0.1	28.2	0.0
C-2-0	171	5.7	2.8	29.4	0.2	28.2	0.1
C-2-0	171	4.2	3.2	29.4	0.1	28.2	0.1
C-2-0	171	8.2	3.0	29.4	0.3	28.2	0.1
C-2-0	171	3.6	2.2	29.4	0.1	28.2	0.1
C-2-0	171	3.3	1.5	29.4	0.1	28.2	0.1

Total Exceedances:	0	0
Percent Exceedance:	0%	0%
Average Exceedance Factor:	0.19	0.14

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
0.960*exp(A*ln(TH)+B), for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995
d Hardness values taken from EOA, 1991

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR LEAD WITH WET WEATHER DATA

Station ID/ Storm Event	Estimated Hardness (d) as CaCO3 [mg/l]	Lead Total EMC (a) DL = 1.0 (b) [µg/l]	Lead Dissolved EMC DL = 1.0 [µg/l]	ACUTE Total Objective A = 1.273 B = -1.46 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 1.273 B = -1.46 [µg/l]	Exceedance Factor (c) DISSOLVED
C-1-0	160	0.95	0.15	148.5	0.0	107.3	0.0
C-1-0	160	0.10	0.10	148.5	0.0	107.3	0.0
C-1-0	160	0.20	0.1	148.5	0.0	107.3	0.0
C-1-0	160	0.50	0.3	148.5	0.0	107.3	0.0
C-1-0	160	0.60	0.5	148.5	0.0	107.3	0.0
C-1-0	160	1.50	0.5	148.5	0.0	107.3	0.0
C-1-0	160	2.00	0.27	148.5	0.0	107.3	0.0
C-2-0	171	1.70	0.6	161.6	0.0	115.2	0.0
C-2-0	171	1.20	0.1	161.6	0.0	115.2	0.0
C-2-0	171	0.20	0.1	161.6	0.0	115.2	0.0
C-2-0	171	6.00	0.8	161.6	0.0	115.2	0.0
C-2-0	171	1.10	0.3	161.6	0.0	115.2	0.0
C-2-0	171	2.10	0.3	161.6	0.0	115.2	0.0

Total Exceedances:	0	0
Percent Exceedance:	0%	0%
Average Exceedance Factor:	0.01	0.0

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
(exp(A*ln(TH)+B))*(1.46203-0.145712*ln(TH)), dissolved, from EPA Federal Register 40 CFR Part 131 May 4, 1995
d Hardness values taken from EOA, 1991

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR MERCURY WITH WET WEATHER DATA

Station ID	Estimated Hardness (d) as CaCO3 [mg/l]	Mercury Total EMC (a) DL = 0.2 (b) [µg/l]	Mercury Dissolved EMC DL = 0.2 [µg/l]	ACUTE	
				Exceedance Factor (c) TOTAL OBJ=2.4 µg/l	Exceedance Factor (c) DISSOLVED OBJ=2.1 µg/l
C-1-0	160	0.03	0.02	0.0	0.0
C-1-0	160	0.01	0.01	0.0	0.0
C-1-0	160	0.020	0.020	0.0	0.0
C-1-0	160	0.020	0.020	0.0	0.0
C-1-0	160	0.020	0.020	0.0	0.0
C-1-0	160	0.020	0.020	0.0	0.0
C-1-0	160	0.02	0.02	0.0	0.0
C-2-0	171	0.120	0.110	0.1	0.1
C-2-0	171	0.010	0.010	0.0	0.0
C-2-0	171	0.020	0.020	0.0	0.0
C-2-0	171	0.020	0.020	0.0	0.0
C-2-0	171	0.020	0.020	0.0	0.0
C-2-0	171	0.038	0.030	0.0	0.0

Total Exceedances:	0	0
Percent Exceedance:	0%	0%
Average Exceedance Factor:	0.01	0.01

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
d Hardness values taken from EOA, 1991

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR NICKEL WITH WET WEATHER DATA

Station ID/ Storm Event	Estimated Hardness (d) as CaCO3 [mg/l]	Nickel Total EMC (a) DL = 2.0 (b) [µg/l]	Nickel Dissolved EMC DL = 2.0 [µg/l]	ACUTE			
				Total Objective A = 0.846 B = 3.312 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 0.846 B = 3.312 [µg/l]	Exceedance Factor (c) DISSOLVED
C-1-0	160	10.20	7.75	2009	0.0	2005	0.0
C-1-0	160	13.25	8.95	2009	0.0	2005	0.0
C-1-0	160	11.0	9.7	2009	0.0	2005	0.0
C-1-0	160	13.0	11.0	2009	0.0	2005	0.0
C-1-0	160	25.0	26.0	2009	0.0	2005	0.0
C-1-0	160	19.1	14.1	2009	0.0	2005	0.0
C-1-0	160	13.67	9.20	2009	0.0	2005	0.0
C-2-0	171	9.2	5.9	2126	0.0	2121	0.0
C-2-0	171	10.4	4.0	2126	0.0	2121	0.0
C-2-0	171	8.5	5.4	2126	0.0	2121	0.0
C-2-0	171	7.7	4.5	2126	0.0	2121	0.0
C-2-0	171	6.4	5.2	2126	0.0	2121	0.0
C-2-0	171	13.6	8.8	2126	0.0	2121	0.0

Total Exceedances:	0	0
Percent Exceedance:	0%	0%
Average Exceedance Factor:	0.01	0.00

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
0.998*exp(A*ln(TH)+B), for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995
d Hardness values taken from EOA, 1991

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR SELENIUM WITH WET WEATHER DATA

Station ID	Estimated Hardness (d) as CaCO3 [mg/l]	Selenium Total EMC (a) DL = 0.025, 0.2, 0.3 (b) [µg/l]	Selenium Dissolved (e) EMC DL = 0.025, 0.2, 0.3 [µg/l]	ACUTE Exceedance Factor (c) TOTAL OBJ=20 µg/l
C-1-0	160	0.10	0.15	0.0
C-1-0	160	0.20	0.20	0.0
C-1-0	160	0.1	0.2	0.0
C-1-0	160	0.1	0.1	0.0
C-1-0	160	0.2	0.2	0.0
C-1-0	160	0.1	0.1	0.0
C-1-0	160	0.77	0.30	0.0
C-2-0	171	0.4	0.4	0.0
C-2-0	171	0.2	0.3	0.0
C-2-0	171	0.1	0.2	0.0
C-2-0	171	0.1	0.1	0.0
C-2-0	171	0.2	0.2	0.0
C-2-0	171	0.2	0.2	0.0

Total Exceedances:	0
Percent Exceedance:	0%
Average Exceedance Factor:	0.01

a	**EMC = Event Mean Concentration = Flow Composite Sample**
b	**DL = Detection Limit**
c	**Exceedance Factor = EMC/Water Quality Objective** **Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:** **exp(A*ln(TH)+B), from San Francisco Bay Region (2), Water Quality Control Plan, December 1986**
d	**Hardness values taken from EOA, 1991**
e	**There are no objectives for dissolved selenium in EPA Federal Register 40 CFR Part 131 May 4, 1995**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR ZINC WITH WET WEATHER DATA

Station ID/ Storm Event	Estimated Hardness (d) as CaCO3 [mg/l]	Zinc Total EMC (a) DL = 1.0 (b) [µg/l]	Zinc Dissolved EMC DL = 1.0 [µg/l]	ACUTE Total Objective A = 0.8473 B = 0.8604 [µg/l]	ACUTE Exceedance Factor (c) TOTAL	ACUTE Dissolved Objective A = 0.8473 B = 0.8604 [µg/l]	ACUTE Exceedance Factor (c) DISSOLVED
C-1-0							
C-1-0	160	73.80	59.85	174.3	0.4	170.4	0.4
C-1-0	160	73.00	70.90	174.3	0.4	170.4	0.4
C-1-0	160	74.0	85.0	174.3	0.4	170.4	0.5
C-1-0	160	56.0	48.0	174.3	0.3	170.4	0.3
C-1-0	160	75.0	69.0	174.3	0.4	170.4	0.4
C-1-0	160	75.6	71.1	174.3	0.4	170.4	0.4
C-2-0	160	64.33	14.00	174.3	0.4	170.4	0.1
C-2-0	171	21.4	13.6	184.4	0.1	180.3	0.1
C-2-0	171	38.8	26.0	184.4	0.2	180.3	0.1
C-2-0	171	22.0	37.0	184.4	0.1	180.3	0.2
C-2-0	171	56.0	19.0	184.4	0.3	180.3	0.1
C-2-0	171	21.0	8.6	184.4	0.1	180.3	0.0
	171	13.6	12.6	184.4	0.1	180.3	0.1

Total Exceedances:	0	0
Percent Exceedance:	0%	0%
Average Exceedance Factor:	0.29	0.24

a	**EMC = Event Mean Concentration = Flow Composite Sample**
b	**DL = Detection Limit**
c	**Exceedance Factor = EMC/Water Quality Objective** **Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:** **exp(A*ln(TH)+B), from San Francisco Bay Region (2), Water Quality Control Plan, December 1986** **0.978*exp(A*ln(TH)+B), for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995**
d	**Hardness values taken from EOA, 1991**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR SILVER WITH WET WEATHER DATA

Station ID	Estimated Hardness (d) as CaCO3 [mg/l]	Silver Total EMC (a) DL = 1.0 (b) [µg/l]	Silver Dissolved EMC DL = 1.0 [µg/l]	ACUTE			
				Total Objective A = 1.72 B = -6.52 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 1.72 B = -6.52 [µg/l]	Exceedance Factor (c) DISSOLVED
C-1-0	160	0.27	0.13	9.1	0.0	7.7	0.0
C-1-0	160	0.21	0.06	9.1	0.0	7.7	0.0
C-1-0	160	0.12	0.09	9.1	0.0	7.7	0.0
C-1-0	160	0.19	0.03	9.1	0.0	7.7	0.0
C-1-0	160	0.16	0.02	9.1	0.0	7.7	0.0
C-1-0	160	0.14	0.02	9.1	0.0	7.7	0.0
C-1-0	160	0.09	0.02	9.1	0.0	7.7	0.0
C-2-0	171	0.50	0.34	10.2	0.0	8.7	0.0
C-2-0	171	0.26	0.03	10.2	0.0	8.7	0.0
C-2-0	171	0.09	0.15	10.2	0.0	8.7	0.0
C-2-0	171	0.02	0.01	10.2	0.0	8.7	0.0
C-2-0	171	0.03	0.04	10.2	0.0	8.7	0.0
C-2-0	171	0.04	0.02	10.2	0.0	8.7	0.0

Total Exceedances:	**0**	**0**
Percent Exceedance:	**0%**	**0%**
Average Exceedance Factor:	**0.02**	**0.01**

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), for total metals, from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
0.85*exp(A*ln(TH)+B), for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995
d Hardness values taken from EOA, 1991

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR CADMIUM WITH DRY WEATHER DATA

Station ID	Estimated Hardness (d) as CaCO3 [mg/l]	Cadmium Total EMC (a) DL = 0.2 (b) [µg/l]	Cadmium Dissolved EMC DL = 0.2 [µg/l]	ACUTE			
				Total Objective A = 1.128 B = -3.838 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 1.128 B = -3.838 [µg/l]	Exceedance Factor (c) DISSOLVED
C-1-0	160	0.06	0.06	6.6	0.0	6.1	0.0
C-1-0	160	0.05	0.11	6.6	0.0	6.1	0.0
C-1-0	160	0.16	0.10	6.6	0.0	6.1	0.0
C-1-0	160	0.03	0.03	6.6	0.0	6.1	0.0
C-1-0	160	0.04	0.06	6.6	0.0	6.1	0.0
C-1-0	160	0.05	0.05	6.6	0.0	6.1	0.0
C-1-0	160	0.09	0.10	6.6	0.0	6.1	0.0
C-2-0	171	0.10	0.06	7.1	0.0	6.6	0.0
C-2-0	171	0.07	0.06	7.1	0.0	6.6	0.0
C-2-0	171	0.06	0.04	7.1	0.0	6.6	0.0
C-2-0	171	0.03	0.03	7.1	0.0	6.6	0.0
C-2-0	171	0.14	0.06	7.1	0.0	6.6	0.0
C-2-0	171	0.06	0.06	7.1	0.0	6.6	0.0

	TOTAL	DISSOLVED
Total Exceedances:	0	0
Percent Exceedance:	0%	0%
Average Exceedance Factor:	0.01	0.01

a EMC = Event Mean Concentration = Flow Composite Sample

b DL = Detection Limit

c Exceedance Factor = EMC/Water Quality Objective

Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:

$\exp(A*\ln(TH)+B)$, from San Francisco Bay Region (2), Water Quality Control Plan, December 1986

$\exp(A*\ln(TH)+B)*(1.136672-(0.041838*\ln(TH))$, dissolved, from EPA Federal Register 40 CFR Part 131 May 4, 1995

d Hardness values taken from EOA, 1991

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR CHROMIUM WITH DRY WEATHER DATA

Station ID/ Storm Eve	Estimated Hardness (d) as CaCO3 [mg/l]	Chromium Total EMC (a) DL = 1.0 (b) [µg/l]	Chromium Dissolved EMC DL = 1.0 [µg/l]	ACUTE			
				Total Objective A = 0.819 B = 3.688 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 0.819 B = 3.688 [µg/l]	Exceedance Factor (c) DISSOLVED
C-1-0	160	0.10	0.10	2552	0.0	2552	0.0
C-1-0	160	0.10	0.12	2552	0.0	2552	0.0
C-1-0	160	0.30	0.10	2552	0.0	2552	0 0
C-1-0	160	0.10	0.10	2552	0.0	2552	0 0
C-1-0	160	0.10	0.10	2552	0.0	2552	0.0
C-1-0	160	0.10	0.10	2552	0.0	2552	0.0
C-1-0	160	0.67	0.10	2552	0.0	2552	0.0
C-2-0	171	1.10	0.10	2695	0.0	2695	0.0
C-2-0	171	0.38	0.10	2695	0.0	2695	0.0
C-2-0	171	0.20	0.10	2695	0.0	2695	0.0
C-2-0	171	4.50	0.10	2695	0.0	2695	0.0
C-2-0	171	30.00	0.30	2695	0.0	2695	0.0
C-2-0	171	1.30	0.20	2695	0.0	2695	0.0

	TOTAL	DISSOLVED
Total Exceedances:	0	0
Percent Exceedance:	0%	0%
Average Exceedance Factor:	0.00	0.00

a EMC = Event Mean Concentration = Flow Composite Sample

b DL = Detection Limit

c Exceedance Factor = EMC/Water Quality Objective

Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:

$\exp(A*\ln(TH)+B)$, from San Francisco Bay Region (2), Water Quality Control Plan, December 1986

$0.316*\exp(A*\ln(TH)+B)$, for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995

d Hardness values taken from EOA, 1991

Water Quality Objectives based on Chromium 3+

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR COPPER WITH DRY WEATHER DATA

Station ID/ Storm Event Station ID	Estimated Hardness (d) as CaCO3 [mg/l]	Copper Total EMC (a) DL = 1.0 (b) [µg/l]	Copper Dissolved EMC DL = 1.0 [µg/l]	ACUTE			
				Total Objective A = 0.9422 B = -1.464 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 0.9422 B = -1.464 [µg/l]	Exceedance Factor (c) DISSOLVED
C-1-0	160	3.40	2.90	27.6	0.1	26.5	0.1
C-1-0	160	3.70	4.00	27.6	0.1	26.5	0.2
C-1-0	160	5.8	4.3	27.6	0.2	26.5	0.2
C-1-0	160	3.2	3.5	27.6	0.1	26.5	0.1
C-1-0	160	4.7	4.6	27.6	0.2	26.5	0.2
C-1-0	160	3.3	3.1	27.6	0.1	26.5	0.1
C-1-0	160	5.00	4.03	27.6	0.2	26.5	0.2
C-2-0	171	4.5	3.6	29.4	0.2	28.2	0.1
C-2-0	171	3.8	2.8	29.4	0.1	28.2	0.1
C-2-0	171	2.4	1.8	29.4	0.1	28.2	0.1
C-2-0	171	8.5	6.7	29.4	0.3	28.2	0.2
C-2-0	171	30.0	5.4	29.4	1.0	28.2	0.2
C-2-0	171	4.9	3.3	29.4	0.2	28.2	0.1

Total Exceedances:	**1**	**0**
Percent Exceedance:	**8%**	**0%**
Average Exceedance Factor:	**0.22**	**0.14**

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
0.960*exp(A*ln(TH)+B), for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995
d Hardness values taken from EOA, 1991

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR LEAD WITH DRY WEATHER DATA

Station ID/ Storm Event	Estimated Hardness (d) as CaCO3 [mg/l]	Lead Total EMC (a) DL = 1.0 (b) [µg/l]	Lead Dissolved EMC DL = 1.0 [µg/l]	ACUTE			
				Total Objective A = 1.273 B = -1.46 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 1.273 B = -1.46 [µg/l]	Exceedance Factor (c) DISSOLVED
C-1-0	160	0.20	0.10	148.5	0.0	107.3	0.0
C-1-0	160	0.10	0.10	148.5	0.0	107.3	0.0
C-1-0	160	0.15	0.1	148.5	0.0	107.3	0.0
C-1-0	160	0.80	0.3	148.5	0.0	107.3	0.0
C-1-0	160	0.88	0.2	148.5	0.0	107.3	0.0
C-1-0	160	0.60	0.4	148.5	0.0	107.3	0.0
C-1-0	160	0.90	0.33	148.5	0.0	107.3	0.0
C-2-0	171	2.10	0.1	161.6	0.0	115.2	0.0
C-2-0	171	0.40	0.3	161.6	0.0	115.2	0.0
C-2-0	171	0.60	0.2	161.6	0.0	115.2	0.0
C-2-0	171	0.51	0.1	161.6	0.0	115.2	0.0
C-2-0	171	2.30	0.3	161.6	0.0	115.2	0.0
C-2-0	171	1.20	0.2	161.6	0.0	115.2	0.0

Total Exceedances:	**0**	**0**
Percent Exceedance:	**0%**	**0%**
Average Exceedance Factor:	**0.01**	**0.0**

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
d (exp(A*ln(TH)+B))*(1.46203-0.145712*ln(TH)), dissolved, from EPA Federal Register 40 CFR Part 131 May 4, 1995
Hardness values taken from EOA, 1991

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR MERCURY WITH DRY WEATHER DATA

Station ID	Estimated Hardness (d) as CaCO3 [mg/l]	Mercury Total EMC (a) DL = 0.2 (b) [µg/l]	Mercury Dissolved EMC DL = 0.2 [µg/l]	ACUTE Exceedance Factor (c) TOTAL OBJ=2.4 µg/l	ACUTE Exceedance Factor (c) DISSOLVED OBJ=2.1 µg/l
C-1-0	160	0.02	0.02	0.0	0.0
C-1-0	160	0.02	0.02	0.0	0.0
C-1-0	160	0.020	0.020	0.0	0.0
C-1-0	160	0.020	0.020	0.0	0.0
C-1-0	160	0.020	0.020	0.0	0.0
C-1-0	160	0.020	0.020	0.0	0.0
C-1-0	160	0.02	0.02	0.0	0.0
C-2-0	171	0.020	0.020	0.0	0.0
C-2-0	171	0.020	0.020	0.0	0.0
C-2-0	171	0.020	0.020	0.0	0.0
C-2-0	171	0.020	0.020	0.0	0.0
C-2-0	171	0.020	0.020	0.0	0.0
C-2-0	171	0.030	0.020	0.0	0.0
			Total Exceedances:	0	0
			Percent Exceedance:	0%	0%
			Average Exceedance Factor:	0.01	0.01

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
d Hardness values taken from EOA, 1991

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR NICKEL WITH DRY WEATHER DATA

Station ID/ Storm Event	Estimated Hardness (d) as CaCO3 [mg/l]	Nickel Total EMC (a) DL = 2.0 (b) [µg/l]	Nickel Dissolved EMC DL = 2.0 [µg/l]	ACUTE Total Objective A = 0.846 B = 3.312 [µg/l]	ACUTE Exceedance Factor (c) TOTAL	ACUTE Dissolved Objective A = 0.846 B = 3.312 [µg/l]	ACUTE Exceedance Factor (c) DISSOLVED
C-1-0	160	14.00	11.00	2009	0.0	2005	0.0
C-1-0	160	8.80	7.10	2009	0.0	2005	0.0
C-1-0	160	13.5	9.6	2009	0.0	2005	0.0
C-1-0	160	20.0	16.0	2009	0.0	2005	0.0
C-1-0	160	12.0	10.0	2009	0.0	2005	0.0
C-1-0	160	11.0	11.0	2009	0.0	2005	0.0
C-1-0	160	12.00	12.10	2009	0.0	2005	0.0
C-2-0	171	14.0	11.0	2126	0.0	2121	0.0
C-2-0	171	9.3	6.0	2126	0.0	2121	0.0
C-2-0	171	11.0	6.4	2126	0.0	2121	0.0
C-2-0	171	19.0	7.7	2126	0.0	2121	0.0
C-2-0	171	58.0	8.3	2126	0.0	2121	0.0
C-2-0	171	13.0	6.3	2126	0.0	2121	0.0
				Total Exceedances:	0		0
				Percent Exceedance:	0%		0%
				Average Exceedance Factor:	0.01		0.00

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
0.998*exp(A*ln(TH)+B), for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995
d Hardness values taken from EOA, 1991

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR SELENIUM WITH DRY WEATHER DATA

Station ID	Estimated Hardness (d) as CaCO3 [mg/l]	Selenium Total EMC (a) DL = 0.025, 0.2, 0.3 (b) [µg/l]	Selenium Dissolved (e) EMC DL = 0.025, 0.2, 0.3 [µg/l]	ACUTE Exceedance Factor (c) TOTAL OBJ=20 µg/l
C-1-0	160	0.10	0.20	0.0
C-1-0	160	0.10	0.20	0.0
C-1-0	160	0.2	0.2	0.0
C-1-0	160	0.1	0.2	0.0
C-1-0	160	0.1	0.1	0.0
C-1-0	160	0.1	0.1	0.0
C-1-0	160	0.43	0.30	0.0
C-2-0	171	0.2	0.3	0.0
C-2-0	171	0.2	0.1	0.0
C-2-0	171	0.3	0.8	0.0
C-2-0	171	0.4	0.2	0.0
C-2-0	171	0.5	0.3	0.0
C-2-0	171	0.3	0.3	0.0

Total Exceedances: 0
Percent Exceedance: 0%
Average Exceedance Factor: 0.01

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as: exp(A*ln(TH)+B), from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
d Hardness values taken from EOA, 1991
e There are no objectives for dissolved selenium in EPA Federal Register 40 CFR Part 131 May 4, 1995

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR ZINC WITH DRY WEATHER DATA

Station ID/ Storm Event	Estimated Hardness (d) as CaCO3 [mg/l]	Zinc Total EMC (a) DL = 1.0 (b) [µg/l]	Zinc Dissolved EMC DL = 1.0 [µg/l]	ACUTE Total Objective A = 0.8473 B = 0.8604 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 0.8473 B = 0.8604 [µg/l]	Exceedance Factor (c) DISSOLVED
C-1-0							
C-1-0	160	50.00	4.60	174.3	0.3	170.4	0.0
C-1-0	160	51.00	31.00	174.3	0.3	170.4	0.2
C-1-0	160	63.5	58.9	174.3	0.4	170.4	0.3
C-1-0	160	45.0	40.0	174.3	0.3	170.4	0.2
C-1-0	160	40.0	38.0	174.3	0.2	170.4	0.2
C-1-0	160	39.0	33.0	174.3	0.2	170.4	0.2
	160	17.67	27.87	174.3	0.1	170.4	0.2
C-2-0							
C-2-0	171	19.5	8.4	184.4	0.1	180.3	0.0
C-2-0	171	22.0	11.0	184.4	0.1	180.3	0.1
C-2-0	171	21.2	16.0	184.4	0.1	180.3	0.1
C-2-0	171	22.0	7.9	184.4	0.1	180.3	0.0
C-2-0	171	77.0	4.4	184.4	0.4	180.3	0.0
	171	17.0	7.4	184.4	0.1	180.3	0.0

	TOTAL	DISSOLVED
Total Exceedances:	0	0
Percent Exceedance:	0%	0%
Average Exceedance Factor:	0.21	0.13

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as: exp(A*ln(TH)+B), from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
0.978*exp(A*ln(TH)+B), for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995
d Hardness values taken from EOA, 1991

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR SILVER WITH DRY WEATHER DATA

Station ID	Estimated Hardness (d) as CaCO3 [mg/l]	Silver Total EMC (a) DL = 1.0 (b) [µg/l]	Silver Dissolved EMC DL = 1.0 [µg/l]	ACUTE			
				Total Objective A = 1.72 B = -6.52 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 1.72 B = -6.52 [µg/l]	Exceedance Factor (c) DISSOLVED
C-1-0	160	0.06	0.06	9.1	0.0	7.7	0.0
C-1-0	160	1.10	0.05	9.1	0.1	7.7	0.0
C-1-0	160	0.33	0.12	9.1	0.0	7.7	0.0
C-1-0	160	0.08	0.03	9.1	0.0	7.7	0.0
C-1-0	160	0.12	0.04	9.1	0.0	7.7	0.0
C-1-0	160	0.22	0.14	9.1	0.0	7.7	0.0
C-1-0	160	0.15	0.03	9.1	0.0	7.7	0.0
C-2-0	171	0.18	0.18	10.2	0.0	8.7	0.0
C-2-0	171	0.12	0.10	10.2	0.0	8.7	0.0
C-2-0	171	0.17	0.11	10.2	0.0	8.7	0.0
C-2-0	171	0.11	0.02	10.2	0.0	8.7	0.0
C-2-0	171	0.09	0.12	10.2	0.0	8.7	0.0
C-2-0	171	ND	0.27	10.2	0.1	8.7	0.0
				Total Exceedances:	**0**		**0**
				Percent Exceedance:	**0%**		**0%**
				Average Exceedance Factor:	**0.03**		**0.01**

a EMC = Event Mean Concentration = Flow Composite Sample

b DL = Detection Limit

c Exceedance Factor = EMC/Water Quality Objective

Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), for total metals, from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
0.85*exp(A*ln(TH)+B), for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995

d Hardness values taken from EOA, 1991

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR CADMIUM WITH TRANSITION ZONE SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Cadmium Total (mg/kg)	Objective (5 mg/kg)	Exceedance Factor
C-1-0	0.73	5	0.1
C-1-0	0.69	5	0.1
C-1-0	0.38	5	0.1
C-1-0	0.12	5	0.0
C-1-0	0.23	5	0.0
C-1-0	0.94	5	0.2
C-1-1	0.260	5	0.1
C-1-1	0.318	5	0.1
C-1-1	0.203	5	0.0
C-1-1	0.194	5	0.0
C-1-1	0.277	5	0.1
C-1-1	0.242	5	0.0
C-1-3	0.243	5	0.0
C-1-3	0.240	5	0.0
C-1-3	0.173	5	0.0
C-1-3	0.499	5	0.1
C-1-3	0.313	5	0.1
C-1-3	0.3	5	0.1
C-2-0	0.25	5	0.0
C-2-0	1.68	5	0.3
C-2-0	0.50	5	0.1
C-2-0	0.24	5	0.0
C-2-0	0.25	5	0.0
C-2-0	0.28	5	0.1
C-2-5	0.358	5	0.1
C-2-5	0.263	5	0.1
C-2-5	0.380	5	0.1
C-2-5	0.363	5	0.1
C-2-5	0.367	5	0.1
C-3-0	0.377	5	0.1
C-3-0	0.580	5	0.1
C-3-0	0.267	5	0.1
C-3-0	0.287	5	0.1
C-3-0	0.440	5	0.1
C-3-0	0.443	5	0.1
C-3-0	0.68	5	0.1
C-5-0	0.313	5	0.1
C-5-0	0.370	5	0.1
C-5-0	0.247	5	0.0
C-5-0	0.237	5	0.0
C-5-0	0.143	5	0.0
C-5-0	0.317	5	0.1
C-X	0.233	5	0.0
C-X	0.553	5	0.1
C-X	0.537	5	0.1
C-X	0.250	5	0.1
C-X	0.260	5	0.1
C-X	0.317	5	0.1

Station ID	Cadmium Total (mg/kg)	Objective (5 mg/kg)	Exceedance Factor
R-1	0.66	5	0.1
R-1	1.18	5	0.2
R-1	0.87	5	0.2
R-2	0.277	5	0.1
R-2	0.360	5	0.1
R-2	0.237	5	0.0
R-2	0.187	5	0.0
R-2	0.227	5	0.0
R-2	0.320	5	0.1
R-4	0.257	5	0.1
R-4	0.220	5	0.0
R-4	0.153	5	0.0
R-4	0.310	5	0.1
R-4	0.277	5	0.1
R-5	0.253	5	0.1
R-5	0.330	5	0.1
R-5	0.517	5	0.1
R-5	0.243	5	0.0
R-5	0.217	5	0.0
R-5	0.258	5	0.1
R-7	0.317	5	0.1
R-7	0.373	5	0.1
R-7	0.470	5	0.1

Total Exceedances	0
Percent Exceedance	0.00%
Average Exceedance Factor	0.08

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR CADMIUM WITH TRANSITION ZONE SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Cadmium Total (mg/kg)	Objective (5 mg/kg)	Exceedance Factor
C-1-0	0.49	5	0.1
C-1-0	0.26	5	0.1
C-1-0	0.68	5	0.1
C-1-0	0.32	5	0.1
C-1-0	0.14	5	0.0
C-1-0	1.07	5	0.2
C-1-1	0.483	5	0.1
C-1-1	0.427	5	0.1
C-1-1	0.354	5	0.1
C-1-1	0.173	5	0.0
C-1-1	0.223	5	0.0
C-1-1	0.267	5	0.1
C-1-3	0.380	5	0.1
C-1-3	0.373	5	0.1
C-1-3	0.353	5	0.1
C-1-3	0.233	5	0.0
C-1-3	0.233	5	0.0
C-1-3	0.343	5	0.1
C-1-3	0.48	5	0.1
C-2-0	0.56	5	0.1
C-2-0	0.29	5	0.1
C-2-0	0.34	5	0.1
C-2-0	0.21	5	0.0
C-2-0	0.29	5	0.1
C-2-0	0.37	5	0.1
C-2-5	0.613	5	0.1
C-2-5	0.370	5	0.1
C-2-5	0.380	5	0.1
C-2-5	0.300	5	0.1
C-2-5	0.320	5	0.1
C-2-5	0.463	5	0.1
C-3-0	0.500	5	0.1
C-3-0	0.420	5	0.1
C-3-0	0.300	5	0.1
C-3-0	0.237	5	0.0
C-3-0	0.287	5	0.1
C-3-0	0.353	5	0.1
C-3-0	0.18	5	0.0
C-5-0	0.530	5	0.1
C-5-0	0.290	5	0.1
C-5-0	0.227	5	0.0
C-5-0	0.213	5	0.0
C-5-0	0.260	5	0.1
C-5-0	0.217	5	0.0
C-X	0.417	5	0.1
C-X	0.253	5	0.1
C-X	0.267	5	0.1
C-X	0.267	5	0.1
C-X	0.307	5	0.1
C-X	0.253	5	0.1

Station ID	Cadmium Total (mg/kg)	Objective (5 mg/kg)	Exceedance Factor
R-1	0.83	5	0.2
R-1	0.96	5	0.2
R-2	0.263	5	0.1
R-2	0.210	5	0.0
R-2	0.167	5	0.0
R-2	0.225	5	0.0
R-2	0.152	5	0.0
R-2	0.217	5	0.0
R-4	0.230	5	0.0
R-4	0.203	5	0.0
R-4	0.200	5	0.0
R-4	0.220	5	0.0
R-4	0.217	5	0.0
R-4	0.213	5	0.0
R-5	0.220	5	0.0
R-5	0.147	5	0.0
R-5	0.240	5	0.0
R-5	0.197	5	0.0
R-5	0.260	5	0.1
R-5	0.240	5	0.0
R-7	0.330	5	0.1
R-7	0.490	5	0.1
R-7	0.580	5	0.1

Total Exceedances	0
Percent Exceedance	0.00%
Average Exceedance Factor	0.07

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR CHROMIUM WITH TRANSITION ZONE SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Chromium Total (mg/kg)	Objective (220 mg/kg)	Exceedance Factor
C-1-0	153	220	0.7
C-1-0	196	220	0.9
C-1-0	170	220	0.8
C-1-0	160	220	0.7
C-1-0	130	220	0.6
C-1-0	234	220	1.1
C-1-1	173	220	0.8
C-1-1	190	220	0.9
C-1-1	167	220	0.8
C-1-1	150	220	0.7
C-1-1	150	220	0.7
C-1-1	172	220	0.8
C-1-3	173	220	0.8
C-1-3	127	220	0.6
C-1-3	140	220	0.6
C-1-3	107	220	0.5
C-1-3	150	220	0.7
C-1-3	75.2	220	0.3
C-2-0	150	220	0.7
C-2-0	174	220	0.8
C-2-0	167	220	0.8
C-2-0	154	220	0.7
C-2-0	140	220	0.6
C-2-0	172	220	0.8
C-2-5	150	220	0.7
C-2-5	163	220	0.7
C-2-5	147	220	0.7
C-2-5	143	220	0.7
C-2-5	170	220	0.8
C-3-0	170	220	0.8
C-3-0	180	220	0.8
C-3-0	180	220	0.8
C-3-0	160	220	0.7
C-3-0	123	220	0.6
C-3-0	157	220	0.7
C-3-0	108	220	0.5
C-5-0	147	220	0.7
C-5-0	160	220	0.7
C-5-0	130	220	0.6
C-5-0	120	220	0.5
C-5-0	120	220	0.5
C-5-0	140	220	0.6
C-X	147	220	0.7
C-X	163	220	0.7
C-X	167	220	0.8
C-X	147	220	0.7
C-X	130	220	0.6
C-X	160	220	0.7

Station ID	Chromium Total (mg/kg)	Objective (220 mg/kg)	Exceedance Factor
R-1	142	220	0.6
R-1	108	220	0.5
R-1	124	220	0.6
R-2	153	220	0.7
R-2	190	220	0.9
R-2	167	220	0.8
R-2	153	220	0.7
R-2	117	220	0.5
R-2	147	220	0.7
R-4	163	220	0.7
R-4	167	220	0.8
R-4	163	220	0.7
R-4	133	220	0.6
R-4	147	220	0.7
R-5	170	220	0.8
R-5	197	220	0.9
R-5	187	220	0.8
R-5	145	220	0.7
R-5	140	220	0.6
R-5	158	220	0.7
R-7	107	220	0.5
R-7	123	220	0.6
R-7	150	220	0.7

Total Exceedances	**1**
Percent Exceedance	**1.41%**
Average Exceedance Factor	**0.69**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR CHROMIUM WITH TRANSITION ZONE SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Chromium Total (mg/kg)	Objective (220 mg/kg)	Exceedance Factor
C-1-0	184	220	0.8
C-1-0	183	220	0.8
C-1-0	228	220	1.0
C-1-0	150	220	0.7
C-1-0	137	220	0.6
C-1-0	200	220	0.9
C-1-1	206	220	0.9
C-1-1	210	220	1.0
C-1-1	204	220	0.9
C-1-1	160	220	0.7
C-1-1	167	220	0.8
C-1-1	180	220	0.8
C-1-3	163	220	0.7
C-1-3	143	220	0.7
C-1-3	177	220	0.8
C-1-3	150	220	0.7
C-1-3	137	220	0.6
C-1-3	137	220	0.6
C-1-3	171	220	
C-2-0	200	220	0.9
C-2-0	177	220	0.8
C-2-0	200	220	0.9
C-2-0	147	220	0.7
C-2-0	153	220	0.7
C-2-0	160	220	0.7
C-2-5	200	220	0.9
C-2-5	190	220	0.9
C-2-5	203	220	0.9
C-2-5	150	220	0.7
C-2-5	150	220	0.7
C-2-5	153	220	0.7
C-3-0	197	220	0.9
C-3-0	177	220	0.8
C-3-0	193	220	0.9
C-3-0	150	220	0.7
C-3-0	150	220	0.7
C-3-0	167	220	0.8
C-3-0	81	220	0.4
C-5-0	177	220	0.8
C-5-0	143	220	0.7
C-5-0	193	220	0.9
C-5-0	143	220	0.7
C-5-0	140	220	0.6
C-5-0	147	220	0.7
C-X	173	220	0.8
C-X	183	220	0.8
C-X	187	220	0.8
C-X	143	220	0.7
C-X	147	220	0.7
C-X	157	220	0.7

Station ID	Chromium Total (mg/kg)	Objective (220 mg/kg)	Exceedance Factor
R-1	130	220	0.6
R-1	138	220	0.6
R-2	163	220	0.7
R-2	183	220	0.8
R-2	167	220	0.8
R-2	140	220	0.6
R-2	127	220	0.6
R-2	156	220	0.7
R-4	163	220	0.7
R-4	190	220	0.9
R-4	173	220	0.8
R-4	147	220	0.7
R-4	183	220	0.8
R-4	153	220	0.7
R-5	167	220	0.8
R-5	213	220	1.0
R-5	183	220	0.8
R-5	150	220	0.7
R-5	223	220	1.0
R-5	160	220	0.7
R-7	150	220	0.7
R-7	180	220	0.8
R-7	150	220	0.7

Total Exceedances	**2**
Percent Exceedance	**2.74%**
Average Exceedance Factor	**0.76**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR COPPER WITH TRANSITION ZONE SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Copper Total (mg/kg)	Objective (90 mg/kg)	Exceedance Factor
C-1-0	95.0	90	1.1
C-1-0	77.6	90	0.9
C-1-0	71.3	90	0.8
C-1-0	56.0	90	0.6
C-1-0	52.0	90	0.6
C-1-0	103.4	90	1.1
C-1-1	54.0	90	0.6
C-1-1	63.0	90	0.7
C-1-1	58.0	90	0.6
C-1-1	55.0	90	0.6
C-1-1	60.7	90	0.7
C-1-1	56.8	90	0.6
C-1-3	54.0	90	0.6
C-1-3	45.0	90	0.5
C-1-3	54.0	90	0.6
C-1-3	49.1	90	0.5
C-1-3	52.7	90	0.6
C-1-3	34.8	90	0.4
C-2-0	64.0	90	0.7
C-2-0	52.6	90	0.6
C-2-0	56.7	90	0.6
C-2-0	54.4	90	0.6
C-2-0	60.7	90	0.7
C-2-0	57.4	90	0.6
C-2-5	65.3	90	0.7
C-2-5	48.3	90	0.5
C-2-5	57.0	90	0.6
C-2-5	63.0	90	0.7
C-2-5	57.0	90	0.6
C-3-0	55.3	90	0.6
C-3-0	58.0	90	0.6
C-3-0	56.0	90	0.6
C-3-0	59.7	90	0.7
C-3-0	56.0	90	0.6
C-3-0	57.0	90	0.6
C-3-0	57.8	90	0.6
C-5-0	47.3	90	0.5
C-5-0	50.0	90	0.6
C-5-0	37.7	90	0.4
C-5-0	45.3	90	0.5
C-5-0	48.7	90	0.5
C-5-0	50.3	90	0.6
C-X	58.7	90	0.7
C-X	48.7	90	0.5
C-X	48.8	90	0.5
C-X	51.3	90	0.6
C-X	59.7	90	0.7
C-X	57.7	90	0.6

Station ID	Copper Total (mg/kg)	Objective (90 mg/kg)	Exceedance Factor
R-1	66.4	90	0.7
R-1	74.2	90	0.8
R-1	65.4	90	0.7
R-2	43.3	90	0.5
R-2	54.0	90	0.6
R-2	56.0	90	0.6
R-2	43.3	90	0.5
R-2	56.3	90	0.6
R-2	52.7	90	0.6
R-4	50.3	90	0.6
R-4	56.7	90	0.6
R-4	51.3	90	0.6
R-4	57.0	90	0.6
R-4	50.3	90	0.6
R-5	50.0	90	0.6
R-5	55.7	90	0.6
R-5	58.3	90	0.6
R-5	46.6	90	0.5
R-5	56.3	90	0.6
R-5	54.5	90	0.6
R-7	52.0	90	0.6
R-7	55.3	90	0.6
R-7	54.3	90	0.6

Total Exceedances	**2**
Percent Exceedance	**2.82%**
Average Exceedance Factor	**0.62**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR COPPER WITH TRANSITION ZONE SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Copper Total (mg/kg)	Objective (90 mg/kg)	Exceedance Factor
C-1-0	65.0	90	0.7
C-1-0	57.7	90	0.6
C-1-0	98.6	90	1.1
C-1-0	56.3	90	0.6
C-1-0	44.3	90	0.5
C-1-0	106.3	90	1.2
C-1-1	73.4	90	0.8
C-1-1	80.8	90	0.9
C-1-1	82.9	90	0.9
C-1-1	55.0	90	0.6
C-1-1	65.0	90	0.7
C-1-1	65.0	90	0.7
C-1-3	55.7	90	0.6
C-1-3	53.7	90	0.6
C-1-3	70.3	90	0.8
C-1-3	52.7	90	0.6
C-1-3	54.3	90	0.6
C-1-3	52.0	90	0.6
C-1-3	94.6	90	1.1
C-2-0	71.2	90	0.8
C-2-0	66.7	90	0.7
C-2-0	78.0	90	0.9
C-2-0	50.7	90	0.6
C-2-0	62.3	90	0.7
C-2-0	64.7	90	0.7
C-2-5	63.7	90	0.7
C-2-5	66.7	90	0.7
C-2-5	77.0	90	0.9
C-2-5	54.0	90	0.6
C-2-5	59.7	90	0.7
C-2-5	61.3	90	0.7
C-3-0	65.0	90	0.7
C-3-0	63.7	90	0.7
C-3-0	70.3	90	0.8
C-3-0	52.7	90	0.6
C-3-0	57.7	90	0.6
C-3-0	62.3	90	0.7
C-3-0	22	90	0.2
C-5-0	58.0	90	0.6
C-5-0	46.3	90	0.5
C-5-0	64.3	90	0.7
C-5-0	49.3	90	0.5
C-5-0	51.7	90	0.6
C-5-0	53.7	90	0.6
C-X	50.7	90	0.6
C-X	53.0	90	0.6
C-X	61.7	90	0.7
C-X	49.7	90	0.6
C-X	54.3	90	0.6
C-X	54.0	90	0.6

Station ID	Copper Total (mg/kg)	Objective (90 mg/kg)	Exceedance Factor
R-1	64.0	90	0.7
R-1	90.6	90	1.0
R-2	57.7	90	0.6
R-2	54.3	90	0.6
R-2	60.3	90	0.7
R-2	50.7	90	0.6
R-2	46.2	90	0.5
R-2	58.1	90	0.6
R-4	59.3	90	0.7
R-4	57.0	90	0.6
R-4	62.0	90	0.7
R-4	51.0	90	0.6
R-4	67.7	90	0.8
R-4	58.0	90	0.6
R-5	59.0	90	0.7
R-5	62.0	90	0.7
R-5	67.0	90	0.7
R-5	53.0	90	0.6
R-5	81.0	90	0.9
R-5	60.0	90	0.7
R-7	50.0	90	0.6
R-7	74.3	90	0.8
R-7	54.0	90	0.6

Total Exceedances	**4**
Percent Exceedance	**5.48%**
Average Exceedance Factor	**0.68**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR LEAD WITH TRANSITION ZONE SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Lead Total (mg/kg)	Objective (50 mg/kg)	Exceedance Factor
C-1-0	59.0	50	1.2
C-1-0	38.0	50	0.8
C-1-0	43.7	50	0.9
C-1-0	21.8	50	0.4
C-1-0	25.7	50	0.5
C-1-0	66.2	50	1.3
C-1-1	36.7	50	0.7
C-1-1	35.2	50	0.7
C-1-1	39.7	50	0.8
C-1-1	32.2	50	0.6
C-1-1	31.7	50	0.6
C-1-1	31.0	50	0.6
C-1-3	31.0	50	0.6
C-1-3	29.3	50	0.6
C-1-3	36.7	50	0.7
C-1-3	28.7	50	0.6
C-1-3	26.7	50	0.5
C-1-3	28	50	0.6
C-2-0	37.0	50	0.7
C-2-0	168.0	50	3.4
C-2-0	44.3	50	0.9
C-2-0	30.4	50	0.6
C-2-0	29.0	50	0.6
C-2-0	29.6	50	0.6
C-2-5	35.5	50	0.7
C-2-5	36.0	50	0.7
C-2-5	30.3	50	0.6
C-2-5	31.7	50	0.6
C-2-5	30.7	50	0.6
C-3-0	34.0	50	0.7
C-3-0	31.0	50	0.6
C-3-0	36.3	50	0.7
C-3-0	34.0	50	0.7
C-3-0	32.3	50	0.6
C-3-0	29.3	50	0.6
C-3-0	41.2	50	0.8
C-5-0	27.0	50	0.5
C-5-0	27.0	50	0.5
C-5-0	25.7	50	0.5
C-5-0	23.3	50	0.5
C-5-0	23.3	50	0.5
C-5-0	22.7	50	0.5
C-X	32.7	50	0.7
C-X	32.7	50	0.7
C-X	36.7	50	0.7
C-X	30.7	50	0.6
C-X	30.3	50	0.6
C-X	29.3	50	0.6

Station ID	Lead Total (mg/kg)	Objective (50 mg/kg)	Exceedance Factor
R-1	67.4	50	1.3
R-1	83.0	50	1.7
R-1	89.8	50	1.8
R-2	24.7	50	0.5
R-2	28.0	50	0.6
R-2	30.7	50	0.6
R-2	24.7	50	0.5
R-2	23.3	50	0.5
R-2	24.3	50	0.5
R-4	29.3	50	0.6
R-4	31.3	50	0.6
R-4	25.3	50	0.5
R-4	23.7	50	0.5
R-4	25.3	50	0.5
R-5	30.3	50	0.6
R-5	29.0	50	0.6
R-5	34.3	50	0.7
R-5	28.6	50	0.6
R-5	27.0	50	0.5
R-5	26.7	50	0.5
R-7	32.3	50	0.6
R-7	32.3	50	0.6
R-7	29.7	50	0.6

Total Exceedances	6
Percent Exceedance	8.45%
Average Exceedance Factor	0.71

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR LEAD WITH TRANSITION ZONE SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Lead Total (mg/kg)	Objective (50 mg/kg)	Exceedance Factor
C-1-0	35.4	50	0.7
C-1-0	21.7	50	0.4
C-1-0	54.6	50	1.1
C-1-0	32.7	50	0.7
C-1-0	14.0	50	0.3
C-1-0	50.0	50	1.0
C-1-1	41.1	50	0.8
C-1-1	51.5	50	1.0
C-1-1	44.8	50	0.9
C-1-1	37.0	50	0.7
C-1-1	35.0	50	0.7
C-1-1	32.3	50	0.6
C-1-3	31.0	50	0.6
C-1-3	36.3	50	0.7
C-1-3	39.7	50	0.8
C-1-3	33.7	50	0.7
C-1-3	27.7	50	0.6
C-1-3	25.0	50	0.5
C-1-3	45.4	50	0.9
C-2-0	40.6	50	0.8
C-2-0	44.3	50	0.9
C-2-0	46.0	50	0.9
C-2-0	38.3	50	0.8
C-2-0	37.7	50	0.8
C-2-0	38.0	50	0.8
C-2-5	33.0	50	0.7
C-2-5	41.7	50	0.8
C-2-5	39.3	50	0.8
C-2-5	35.0	50	0.7
C-2-5	30.0	50	0.6
C-2-5	27.7	50	0.6
C-3-0	32.7	50	0.7
C-3-0	36.0	50	0.7
C-3-0	35.7	50	0.7
C-3-0	35.3	50	0.7
C-3-0	30.3	50	0.6
C-3-0	32.0	50	0.6
C-3-0	10.6	50	0.2
C-5-0	28.7	50	0.6
C-5-0	27.0	50	0.5
C-5-0	33.7	50	0.7
C-5-0	32.7	50	0.7
C-5-0	26.7	50	0.5
C-5-0	24.7	50	0.5
C-X	28.3	50	0.6
C-X	33.7	50	0.7
C-X	35.0	50	0.7
C-X	39.0	50	0.8
C-X	28.7	50	0.6
C-X	29.7	50	0.6

Station ID	Lead Total (mg/kg)	Objective (50 mg/kg)	Exceedance Factor
R-1	68.2	50	1.4
R-1	81.2	50	1.6
R-2	31.7	50	0.6
R-2	28.3	50	0.6
R-2	29.7	50	0.6
R-2	31.0	50	0.6
R-2	22.5	50	0.5
R-2	26.4	50	0.5
R-4	34.7	50	0.7
R-4	30.7	50	0.6
R-4	32.7	50	0.7
R-4	32.7	50	0.7
R-4	33.3	50	0.7
R-4	27.3	50	0.5
R-5	35.3	50	0.7
R-5	34.7	50	0.7
R-5	33.7	50	0.7
R-5	34.0	50	0.7
R-5	40.0	50	0.8
R-5	29.7	50	0.6
R-7	38.3	50	0.8
R-7	47.3	50	0.9
R-7	33.3	50	0.7

Total Exceedances	5
Percent Exceedance	6.85%
Average Exceedance Factor	0.70

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR MERCURY WITH TRANSITION ZONE SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Mercury Total (mg/kg)	Objective (0.35 mg/kg)	Exceedance Factor
C-1-0	0.80	0.35	2.3
C-1-0	0.53	0.35	1.5
C-1-0	0.56	0.35	1.6
C-1-0	0.64	0.35	1.8
C-1-0	0.49	0.35	1.4
C-1-0	0.71	0.35	2.0
C-1-1	0.227	0.35	0.6
C-1-1	0.488	0.35	1.4
C-1-1	0.487	0.35	1.4
C-1-1	0.382	0.35	1.1
C-1-1	0.407	0.35	1.2
C-1-1	0.316	0.35	0.9
C-1-3	0.290	0.35	0.8
C-1-3	0.383	0.35	1.1
C-1-3	0.283	0.35	0.8
C-1-3	0.399	0.35	1.1
C-1-3	0.377	0.35	1.1
C-1-3	0.236	0.35	0.7
C-2-0	0.49	0.35	1.4
C-2-0	0.21	0.35	0.6
C-2-0	0.38	0.35	1.1
C-2-0	0.26	0.35	0.7
C-2-0	0.42	0.35	1.2
C-2-0	0.39	0.35	1.1
C-2-5	0.550	0.35	1.6
C-2-5	0.487	0.35	1.4
C-2-5	0.303	0.35	0.9
C-2-5	0.477	0.35	1.4
C-2-5	0.493	0.35	1.4
C-3-0	0.383	0.35	1.1
C-3-0	0.520	0.35	1.5
C-3-0	0.457	0.35	1.3
C-3-0	0.323	0.35	0.9
C-3-0	0.437	0.35	1.2
C-3-0	0.493	0.35	1.4
C-3-0	0.543	0.35	1.6
C-5-0	0.32	0.35	0.9
C-5-0	0.38	0.35	1.1
C-5-0	0.38	0.35	1.1
C-5-0	0.25	0.35	0.7
C-5-0	0.37	0.35	1.1
C-5-0	0.38	0.35	1.1
C-X	0.457	0.35	1.3
C-X	0.440	0.35	1.3
C-X	0.450	0.35	1.3
C-X	0.477	0.35	1.4
C-X	0.457	0.35	1.3
C-X	0.450	0.35	1.3

Station ID	Mercury Total (mg/kg)	Objective (0.35 mg/kg)	Exceedance Factor
R-1	0.31	0.35	0.9
R-1	0.48	0.35	1.4
R-1	0.37	0.35	1.1
R-2	0.230	0.35	0.7
R-2	0.320	0.35	0.9
R-2	0.437	0.35	1.2
R-2	0.257	0.35	0.7
R-2	0.437	0.35	1.2
R-2	0.370	0.35	1.1
R-4	0.283	0.35	0.8
R-4	0.453	0.35	1.3
R-4	0.270	0.35	0.8
R-4	0.423	0.35	1.2
R-4	0.377	0.35	1.1
R-5	0.277	0.35	0.8
R-5	0.277	0.35	0.8
R-5	0.413	0.35	1.2
R-5	0.289	0.35	0.8
R-5	0.457	0.35	1.3
R-5	0.387	0.35	1.1
R-7	0.207	0.35	0.6
R-7	0.447	0.35	1.3
R-7	0.403	0.35	1.2

Total Exceedances	**50**
Percent Exceedance	**70.42%**
Average Exceedance Factor	**1.15**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR MERCURY WITH TRANSITION ZONE SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Mercury Total (mg/kg)	Objective (0.35 mg/kg)	Exceedance Factor
C-1-0	0.35	0.35	1.0
C-1-0	0.39	0.35	1.1
C-1-0	0.66	0.35	1.9
C-1-0	0.48	0.35	1.4
C-1-0	0.68	0.35	1.9
C-1-0	0.60	0.35	1.7
C-1-1	0.223	0.35	0.6
C-1-1	0.392	0.35	1.1
C-1-1	0.483	0.35	1.4
C-1-1	0.330	0.35	0.9
C-1-1	0.410	0.35	1.2
C-1-1	0.313	0.35	0.9
C-1-3	0.187	0.35	0.5
C-1-3	0.263	0.35	0.8
C-1-3	0.427	0.35	1.2
C-1-3	0.350	0.35	1.0
C-1-3	0.337	0.35	1.0
C-1-3	0.267	0.35	0.8
C-1-3	0.413	0.35	1.2
C-2-0	0.24	0.35	0.7
C-2-0	0.32	0.35	0.9
C-2-0	0.46	0.35	1.3
C-2-0	0.28	0.35	0.8
C-2-0	0.38	0.35	1.1
C-2-0	0.41	0.35	1.2
C-2-5	0.230	0.35	0.7
C-2-5	0.383	0.35	1.1
C-2-5	0.470	0.35	1.3
C-2-5	0.353	0.35	1.0
C-2-5	0.437	0.35	1.2
C-2-5	0.373	0.35	1.1
C-3-0	0.220	0.35	0.6
C-3-0	0.327	0.35	0.9
C-3-0	0.410	0.35	1.2
C-3-0	0.350	0.35	1.0
C-3-0	0.410	0.35	1.2
C-3-0	0.357	0.35	1.0
C-3-0	0.072	0.35	0.2
C-5-0	0.18	0.35	0.5
C-5-0	0.24	0.35	0.7
C-5-0	0.32	0.35	0.9
C-5-0	0.31	0.35	0.9
C-5-0	0.40	0.35	1.1
C-5-0	0.29	0.35	0.8
C-X	0.140	0.35	0.4
C-X	0.190	0.35	0.5
C-X	0.440	0.35	1.3
C-X	0.447	0.35	1.3
C-X	0.400	0.35	1.1
C-X	0.220	0.35	0.6

Station ID	Mercury Total (mg/kg)	Objective (0.35 mg/kg)	Exceedance Factor
R-1	0.32	0.35	0.9
R-1	0.52	0.35	1.5
R-2	0.137	0.35	0.4
R-2	0.250	0.35	0.7
R-2	0.253	0.35	0.7
R-2	0.262	0.35	0.7
R-2	0.368	0.35	1.1
R-2	0.277	0.35	0.8
R-4	0.117	0.35	0.3
R-4	0.250	0.35	0.7
R-4	0.263	0.35	0.8
R-4	0.260	0.35	0.7
R-4	0.353	0.35	1.0
R-4	0.270	0.35	0.8
R-5	0.143	0.35	0.4
R-5	0.277	0.35	0.8
R-5	0.320	0.35	0.9
R-5	0.283	0.35	0.8
R-5	0.327	0.35	0.9
R-5	0.293	0.35	0.8
R-7	0.420	0.35	1.2
R-7	0.400	0.35	1.1
R-7	0.417	0.35	1.2

Total Exceedances	**34**
Percent Exceedance	**46.58%**
Average Exceedance Factor	**0.95**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR NICKEL WITH TRANSITION ZONE SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Nickel Total (mg/kg)	Objective (140 mg/kg)	Exceedance Factor
C-1-0	110	140	0.8
C-1-0	106	140	0.8
C-1-0	120	140	0.9
C-1-0	126	140	0.9
C-1-0	102	140	0.7
C-1-0	113	140	0.8
C-1-1	120	140	0.9
C-1-1	108	140	0.8
C-1-1	120	140	0.9
C-1-1	95	140	0.7
C-1-1	93	140	0.7
C-1-1	97	140	0.7
C-1-3	113	140	0.8
C-1-3	84	140	0.6
C-1-3	94	140	0.7
C-1-3	80	140	0.6
C-1-3	88	140	0.6
C-1-3	81	140	0.6
C-2-0	100	140	0.7
C-2-0	130	140	0.9
C-2-0	123	140	0.9
C-2-0	94	140	0.7
C-2-0	89	140	0.6
C-2-0	99	140	0.7
C-2-5	103	140	0.7
C-2-5	110	140	0.8
C-2-5	100	140	0.7
C-2-5	94	140	0.7
C-2-5	97	140	0.7
C-3-0	117	140	0.8
C-3-0	100	140	0.7
C-3-0	103	140	0.7
C-3-0	113	140	0.8
C-3-0	94	140	0.7
C-3-0	93	140	0.7
C-3-0	119	140	0.8
C-5-0	98	140	0.7
C-5-0	87	140	0.6
C-5-0	86	140	0.6
C-5-0	84	140	0.6
C-5-0	77	140	0.6
C-5-0	80	140	0.6
C-X	98	140	0.7
C-X	90	140	0.6
C-X	120	140	0.9
C-X	98	140	0.7
C-X	90	140	0.6
C-X	93	140	0.7

Station ID	Nickel Total (mg/kg)	Objective (140 mg/kg)	Exceedance Factor
R-1	108	140	0.8
R-1	104	140	0.7
R-1	104	140	0.7
R-2	99	140	0.7
R-2	94	140	0.7
R-2	107	140	0.8
R-2	99	140	0.7
R-2	81	140	0.6
R-2	85	140	0.6
R-4	110	140	0.8
R-4	103	140	0.7
R-4	87	140	0.6
R-4	85	140	0.6
R-4	84	140	0.6
R-5	110	140	0.8
R-5	97	140	0.7
R-5	120	140	0.9
R-5	96	140	0.7
R-5	93	140	0.7
R-5	89	140	0.6
R-7	94	140	0.7
R-7	93	140	0.7
R-7	96	140	0.7

Total Exceedances	0
Percent Exceedance	0.00%
Average Exceedance Factor	0.71

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR NICKEL WITH TRANSITION ZONE SEDIMENT SAMPLES WET SEASON DATA

Station ID	Nickel Total (mg/kg)	Objective (140 mg/kg)	Exceedance Factor
C-1-0	126	140	0.9
C-1-0	140	140	1.0
C-1-0	141	140	1.0
C-1-0	133	140	1.0
C-1-0	117	140	0.8
C-1-0	127	140	0.9
C-1-1	118	140	0.8
C-1-1	127	140	0.9
C-1-1	116	140	0.8
C-1-1	100	140	0.7
C-1-1	100	140	0.7
C-1-1	100	140	0.7
C-1-3	96	140	0.7
C-1-3	96	140	0.7
C-1-3	98	140	0.7
C-1-3	94	140	0.7
C-1-3	86	140	0.6
C-1-3	82	140	0.6
C-1-3	131	140	0.9
C-2-0	114	140	0.8
C-2-0	117	140	0.8
C-2-0	116	140	0.8
C-2-0	94	140	0.7
C-2-0	100	140	0.7
C-2-0	98	140	0.7
C-2-5	113	140	0.8
C-2-5	127	140	0.9
C-2-5	120	140	0.9
C-2-5	93	140	0.7
C-2-5	93	140	0.7
C-2-5	92	140	0.7
C-3-0	117	140	0.8
C-3-0	113	140	0.8
C-3-0	110	140	0.8
C-3-0	94	140	0.7
C-3-0	92	140	0.7
C-3-0	97	140	0.7
C-3-0	69	140	0.5
C-5-0	102	140	0.7
C-5-0	91	140	0.7
C-5-0	110	140	0.8
C-5-0	89	140	0.6
C-5-0	86	140	0.6
C-5-0	88	140	0.6
C-X	103	140	0.7
C-X	98	140	0.7
C-X	113	140	0.8
C-X	92	140	0.7
C-X	94	140	0.7
C-X	93	140	0.7

Station ID	Nickel Total (mg/kg)	Objective (140 mg/kg)	Exceedance Factor
R-1	104	140	0.7
R-1	120	140	0.9
R-2	107	140	0.8
R-2	97	140	0.7
R-2	100	140	0.7
R-2	88	140	0.6
R-2	77	140	0.6
R-2	91	140	0.6
R-4	110	140	0.8
R-4	100	140	0.7
R-4	110	140	0.8
R-4	90	140	0.6
R-4	113	140	0.8
R-4	91	140	0.7
R-5	103	140	0.7
R-5	117	140	0.8
R-5	117	140	0.8
R-5	95	140	0.7
R-5	137	140	1.0
R-5	94	140	0.7
R-7	102	140	0.7
R-7	127	140	0.9
R-7	96	140	0.7

Total Exceedances	**2**
Percent Exceedance	**2.74%**
Average Exceedance Factor	**0.75**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR SELENIUM WITH TRANSITION ZONE SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Selenium Total (mg/kg)	Objective (0.7 mg/kg)	Exceedance Factor
C-1-0	0.62	0.7	0.9
C-1-0	0.24	0.7	0.3
C-1-0	0.33	0.7	0.5
C-1-0	0.24	0.7	0.3
C-1-0	0.43	0.7	0.6
C-1-0	0.83	0.7	1.2
C-1-1	0.28	0.7	0.4
C-1-1	0.23	0.7	0.3
C-1-1	0.29	0.7	0.4
C-1-1	0.24	0.7	0.3
C-1-1	0.31	0.7	0.4
C-1-1	0.22	0.7	0.3
C-1-3	0.24	0.7	0.3
C-1-3	0.22	0.7	0.3
C-1-3	0.21	0.7	0.3
C-1-3	0.22	0.7	0.3
C-1-3	0.20	0.7	0.3
C-1-3	0.54	0.7	0.8
C-2-0	0.29	0.7	0.4
C-2-0	0.23	0.7	0.3
C-2-0	0.29	0.7	0.4
C-2-0	0.26	0.7	0.4
C-2-0	0.32	0.7	0.5
C-2-0	0.25	0.7	0.4
C-2-5	0.28	0.7	0.4
C-2-5	0.24	0.7	0.3
C-2-5	0.15	0.7	0.2
C-2-5	0.26	0.7	0.4
C-2-5	0.25	0.7	0.4
C-3-0	0.23	0.7	0.3
C-3-0	0.21	0.7	0.3
C-3-0	0.21	0.7	0.3
C-3-0	0.17	0.7	0.2
C-3-0	0.27	0.7	0.4
C-3-0	0.27	0.7	0.4
C-3-0	0.42	0.7	0.6
C-5-0	0.19	0.7	0.3
C-5-0	0.16	0.7	0.2
C-5-0	0.17	0.7	0.2
C-5-0	0.17	0.7	0.2
C-5-0	0.22	0.7	0.3
C-5-0	0.24	0.7	0.3
C-X	0.21	0.7	0.3
C-X	0.17	0.7	0.2
C-X	0.25	0.7	0.4
C-X	0.21	0.7	0.3
C-X	0.24	0.7	0.3
C-X	0.32	0.7	0.5

Station ID	Selenium Total (mg/kg)	Objective (0.7 mg/kg)	Exceedance Factor
R-1	0.47	0.7	0.7
R-1	0.65	0.7	0.9
R-1	0.76	0.7	1.1
R-2	0.23	0.7	0.3
R-2	0.17	0.7	0.2
R-2	0.19	0.7	0.3
R-2	0.23	0.7	0.3
R-2	0.24	0.7	0.3
R-2	0.23	0.7	0.3
R-4	0.23	0.7	0.3
R-4	0.22	0.7	0.3
R-4	0.11	0.7	0.2
R-4	0.23	0.7	0.3
R-4	0.20	0.7	0.3
R-5	0.22	0.7	0.3
R-5	0.17	0.7	0.2
R-5	0.19	0.7	0.3
R-5	0.12	0.7	0.2
R-5	0.26	0.7	0.4
R-5	0.21	0.7	0.3
R-7	0.24	0.7	0.3
R-7	0.30	0.7	0.4
R-7	0.26	0.7	0.4

Total Exceedances	**2**
Percent Exceedance	**2.82%**
Average Exceedance Factor	**0.39**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR SELENIUM WITH TRANSITION ZONE SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Selenium Total (mg/kg)	Objective (0.7 mg/kg)	Exceedance Factor
C-1-0	0.42	0.7	0.6
C-1-0	0.39	0.7	0.6
C-1-0	1.08	0.7	1.5
C-1-0	0.49	0.7	0.7
C-1-0	0.56	0.7	0.8
C-1-0	0.51	0.7	0.7
C-1-1	0.42	0.7	0.6
C-1-1	0.34	0.7	0.5
C-1-1	0.49	0.7	0.7
C-1-1	0.26	0.7	0.4
C-1-1	0.31	0.7	0.4
C-1-1	0.22	0.7	0.3
C-1-3	0.24	0.7	0.3
C-1-3	0.24	0.7	0.3
C-1-3	0.44	0.7	0.6
C-1-3	0.26	0.7	0.4
C-1-3	0.26	0.7	0.4
C-1-3	0.18	0.7	0.3
C-1-3	0.87	0.7	1.2
C-2-0	0.34	0.7	0.5
C-2-0	0.32	0.7	0.5
C-2-0	0.59	0.7	0.8
C-2-0	0.24	0.7	0.3
C-2-0	0.34	0.7	0.5
C-2-0	0.25	0.7	0.4
C-2-5	0.31	0.7	0.4
C-2-5	0.27	0.7	0.4
C-2-5	0.44	0.7	0.6
C-2-5	0.23	0.7	0.3
C-2-5	0.27	0.7	0.4
C-2-5	0.20	0.7	0.3
C-3-0	0.27	0.7	0.4
C-3-0	0.26	0.7	0.4
C-3-0	0.37	0.7	0.5
C-3-0	0.24	0.7	0.3
C-3-0	0.25	0.7	0.4
C-3-0	0.21	0.7	0.3
C-3-0	0.30	0.7	0.4
C-5-0	0.20	0.7	0.3
C-5-0	0.20	0.7	0.3
C-5-0	0.34	0.7	0.5
C-5-0	0.23	0.7	0.3
C-5-0	0.21	0.7	0.3
C-5-0	0.19	0.7	0.3
C-X	0.18	0.7	0.3
C-X	0.27	0.7	0.4
C-X	0.36	0.7	0.5
C-X	0.25	0.7	0.4
C-X	0.23	0.7	0.3
C-X	0.22	0.7	0.3

Station ID	Selenium Total (mg/kg)	Objective (0.7 mg/kg)	Exceedance Factor
R-1	0.48	0.7	0.7
R-1	0.74	0.7	1.1
R-2	0.32	0.7	0.5
R-2	0.24	0.7	0.3
R-2	0.24	0.7	0.3
R-2	0.21	0.7	0.3
R-2	0.20	0.7	0.3
R-2	0.19	0.7	0.3
R-4	0.34	0.7	0.5
R-4	0.25	0.7	0.4
R-4	0.27	0.7	0.4
R-4	0.21	0.7	0.3
R-4	0.28	0.7	0.4
R-4	0.17	0.7	0.2
R-5	0.36	0.7	0.5
R-5	0.28	0.7	0.4
R-5	0.29	0.7	0.4
R-5	0.22	0.7	0.3
R-5	0.34	0.7	0.5
R-5	0.17	0.7	0.2
R-7	0.28	0.7	0.4
R-7	0.42	0.7	0.6
R-7	0.21	0.7	0.3

Total Exceedances	**3**
Percent Exceedance	**4.11%**
Average Exceedance Factor	**0.46**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR SILVER WITH TRANSITION ZONE SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Silver Total (mg/kg)	Objective (1.0 mg/kg)	Exceedance Factor
C-1-0	5.53	1	5.5
C-1-0	4.50	1	4.5
C-1-0	5.13	1	5.1
C-1-0	2.00	1	2.0
C-1-0	1.77	1	1.8
C-1-0	7.02	1	7.0
C-1-1	3.03	1	3.0
C-1-1	3.10	1	3.1
C-1-1	3.03	1	3.0
C-1-1	2.24	1	2.2
C-1-1	1.93	1	1.9
C-1-1	2.12	1	2.1
C-1-3	2.83	1	2.8
C-1-3	2.13	1	2.1
C-1-3	2.10	1	2.1
C-1-3	1.47	1	1.5
C-1-3	1.90	1	1.9
C-1-3	0.28	1	0.3
C-2-0	2.77	1	2.8
C-2-0	2.00	1	2.0
C-2-0	2.87	1	2.9
C-2-0	2.20	1	2.2
C-2-0	1.87	1	1.9
C-2-0	2.24	1	2.2
C-2-5	2.92	1	2.9
C-2-5	3.00	1	3.0
C-2-5	<0.3	1	0.3
C-2-5	2.03	1	2.0
C-2-5	2.03	1	2.0
C-3-0	2.93	1	2.9
C-3-0	2.80	1	2.8
C-3-0	3.17	1	3.2
C-3-0	2.20	1	2.2
C-3-0	1.80	1	1.8
C-3-0	1.93	1	1.9
C-3-0	0.98	1	1.0
C-5-0	2.60	1	2.6
C-5-0	2.50	1	2.5
C-5-0	2.37	1	2.4
C-5-0	1.97	1	2.0
C-5-0	1.60	1	1.6
C-5-0	1.63	1	1.6
C-X	2.47	1	2.5
C-X	2.60	1	2.6
C-X	2.77	1	2.8
C-X	2.47	1	2.5
C-X	1.87	1	1.9
C-X	2.23	1	2.2

Station ID	Silver Total (mg/kg)	Objective (1.0 mg/kg)	Exceedance Factor
R-1	1.92	1	1.9
R-1	1.74	1	1.7
R-1	1.36	1	1.4
R-2	2.67	1	2.7
R-2	2.60	1	2.6
R-2	2.80	1	2.8
R-2	2.67	1	2.7
R-2	1.73	1	1.7
R-2	1.87	1	1.9
R-4	2.77	1	2.8
R-4	2.63	1	2.6
R-4	1.70	1	1.7
R-4	1.83	1	1.8
R-4	1.19	1	1.2
R-5	2.73	1	2.7
R-5	2.80	1	2.8
R-5	2.93	1	2.9
R-5	1.61	1	1.6
R-5	1.87	1	1.9
R-5	1.85	1	1.9
R-7	1.73	1	1.7
R-7	1.80	1	1.8
R-7	1.97	1	2.0

Total Exceedances	68
Percent Exceedance	95.77%
Average Exceedance Factor	2.37

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR SILVER WITH TRANSITION ZONE SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Silver Total (mg/kg)	Objective (1.0 mg/kg)	Exceedance Factor
C-1-0	3.36	1	3.4
C-1-0	3.07	1	3.1
C-1-0	5.66	1	5.7
C-1-0	2.77	1	2.8
C-1-0	2.10	1	2.1
C-1-0	5.07	1	5.1
C-1-1	3.26	1	3.3
C-1-1	3.52	1	3.5
C-1-1	3.10	1	3.1
C-1-1	2.23	1	2.2
C-1-1	2.63	1	2.6
C-1-1	2.33	1	2.3
C-1-3	2.23	1	2.2
C-1-3	2.40	1	2.4
C-1-3	2.27	1	2.3
C-1-3	2.07	1	2.1
C-1-3	1.97	1	2.0
C-1-3	1.70	1	1.7
C-1-3	1.11	1	1.1
C-2-0	2.92	1	2.9
C-2-0	2.83	1	2.8
C-2-0	2.80	1	2.8
C-2-0	1.90	1	1.9
C-2-0	2.23	1	2.2
C-2-0	2.20	1	2.2
C-2-5	2.63	1	2.6
C-2-5	3.30	1	3.3
C-2-5	3.27	1	3.3
C-2-5	2.37	1	2.4
C-2-5	2.43	1	2.4
C-2-5	2.33	1	2.3
C-3-0	2.60	1	2.6
C-3-0	2.90	1	2.9
C-3-0	2.90	1	2.9
C-3-0	2.07	1	2.1
C-3-0	2.13	1	2.1
C-3-0	2.50	1	2.5
C-3-0	0.13	1	0.1
C-5-0	2.30	1	2.3
C-5-0	2.30	1	2.3
C-5-0	2.70	1	2.7
C-5-0	1.90	1	1.9
C-5-0	1.87	1	1.9
C-5-0	1.97	1	2.0
C-X	2.23	1	2.2
C-X	2.67	1	2.7
C-X	2.77	1	2.8
C-X	2.13	1	2.1
C-X	1.97	1	2.0
C-X	2.03	1	2.0

Station ID	Silver Total (mg/kg)	Objective (1.0 mg/kg)	Exceedance Factor
R-1	1.86	1	1.9
R-1	2.12	1	2.1
R-2	3.00	1	3.0
R-2	2.63	1	2.6
R-2	2.40	1	2.4
R-2	1.93	1	1.9
R-2	1.63	1	1.6
R-2	1.81	1	1.8
R-4	3.03	1	3.0
R-4	2.80	1	2.8
R-4	2.53	1	2.5
R-4	1.90	1	1.9
R-4	2.47	1	2.5
R-4	1.83	1	1.8
R-5	3.03	1	3.0
R-5	3.07	1	3.1
R-5	2.50	1	2.5
R-5	2.07	1	2.1
R-5	2.77	1	2.8
R-5	2.07	1	2.1
R-7	2.00	1	2.0
R-7	2.67	1	2.7
R-7	1.80	1	1.8

Total Exceedances	72
Percent Exceedance	98.63%
Average Exceedance Factor	2.47

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR ZINC WITH TRANSITION ZONE SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Zinc Total (mg/kg)	Objective (160 mg/kg)	Exceedance Factor
C-1-0	260	160	1.6
C-1-0	268	160	1.7
C-1-0	243	160	1.5
C-1-0	146	160	0.9
C-1-0	143	160	0.9
C-1-0	278	160	1.7
C-1-1	177	160	1.1
C-1-1	200	160	1.3
C-1-1	183	160	1.1
C-1-1	194	160	1.2
C-1-1	160	160	1.0
C-1-1	168	160	1.1
C-1-3	167	160	1.0
C-1-3	137	160	0.9
C-1-3	173	160	1.1
C-1-3	133	160	0.8
C-1-3	150	160	0.9
C-1-3	112	160	0.7
C-2-0	157	160	1.0
C-2-0	358	160	2.2
C-2-0	203	160	1.3
C-2-0	208	160	1.3
C-2-0	160	160	1.0
C-2-0	172	160	1.1
C-2-5	162	160	1.0
C-2-5	147	160	0.9
C-2-5	177	160	1.1
C-2-5	170	160	1.1
C-2-5	170	160	1.1
C-3-0	170	160	1.1
C-3-0	180	160	1.1
C-3-0	167	160	1.0
C-3-0	173	160	1.1
C-3-0	140	160	0.9
C-3-0	153	160	1.0
C-3-0	163	160	1.0
C-5-0	143	160	0.9
C-5-0	150	160	0.9
C-5-0	100	160	0.6
C-5-0	157	160	1.0
C-5-0	120	160	0.8
C-5-0	133	160	0.8
C-X	150	160	0.9
C-X	147	160	0.9
C-X	163	160	1.0
C-X	150	160	0.9
C-X	150	160	0.9
C-X	157	160	1.0

Station ID	Zinc Total (mg/kg)	Objective (160 mg/kg)	Exceedance Factor
R-1	220	160	1.4
R-1	298	160	1.9
R-1	202	160	1.3
R-2	130	160	0.8
R-2	160	160	1.0
R-2	157	160	1.0
R-2	130	160	0.8
R-2	120	160	0.8
R-2	133	160	0.8
R-4	150	160	0.9
R-4	163	160	1.0
R-4	137	160	0.9
R-4	140	160	0.9
R-4	137	160	0.9
R-5	153	160	1.0
R-5	180	160	1.1
R-5	170	160	1.1
R-5	146	160	0.9
R-5	150	160	0.9
R-5	143	160	0.9
R-7	167	160	1.0
R-7	163	160	1.0
R-7	157	160	1.0

Total Exceedances	**36**
Percent Exceedance	**50.70%**
Average Exceedance Factor	**1.05**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR ZINC WITH TRANSITION ZONE SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Zinc Total (mg/kg)	Objective (160 mg/kg)	Exceedance Factor
C-1-0	190	160	1.2
C-1-0	153	160	1.0
C-1-0	272	160	1.7
C-1-0	183	160	1.1
C-1-0	115	160	0.7
C-1-0	273	160	1.7
C-1-1	207	160	1.3
C-1-1	250	160	1.6
C-1-1	238	160	1.5
C-1-1	170	160	1.1
C-1-1	190	160	1.2
C-1-1	180	160	1.1
C-1-3	163	160	1.0
C-1-3	160	160	1.0
C-1-3	193	160	1.2
C-1-3	157	160	1.0
C-1-3	153	160	1.0
C-1-3	140	160	0.9
C-1-3	222	160	1.4
C-2-0	230	160	1.4
C-2-0	213	160	1.3
C-2-0	230	160	1.4
C-2-0	167	160	1.0
C-2-0	187	160	1.2
C-2-0	200	160	1.3
C-2-5	210	160	1.3
C-2-5	207	160	1.3
C-2-5	220	160	1.4
C-2-5	170	160	1.1
C-2-5	173	160	1.1
C-2-5	170	160	1.1
C-3-0	210	160	1.3
C-3-0	190	160	1.2
C-3-0	193	160	1.2
C-3-0	160	160	1.0
C-3-0	163	160	1.0
C-3-0	173	160	1.1
C-3-0	61	160	0.4
C-5-0	167	160	1.0
C-5-0	137	160	0.9
C-5-0	167	160	1.0
C-5-0	143	160	0.9
C-5-0	147	160	0.9
C-5-0	137	160	0.9
C-X	157	160	1.0
C-X	163	160	1.0
C-X	170	160	1.1
C-X	153	160	1.0
C-X	150	160	0.9
C-X	150	160	0.9

Station ID	Zinc Total (mg/kg)	Objective (160 mg/kg)	Exceedance Factor
R-1	238	160	1.5
R-1	360	160	2.3
R-2	150	160	0.9
R-2	143	160	0.9
R-2	170	160	1.1
R-2	142	160	0.9
R-2	125	160	0.8
R-2	144	160	0.9
R-4	153	160	1.0
R-4	157	160	1.0
R-4	183	160	1.1
R-4	147	160	0.9
R-4	183	160	1.1
R-4	150	160	0.9
R-5	150	160	0.9
R-5	170	160	1.1
R-5	190	160	1.2
R-5	157	160	1.0
R-5	227	160	1.4
R-5	160	160	1.0
R-7	180	160	1.1
R-7	233	160	1.5
R-7	170	160	1.1

Total Exceedances	48
Percent Exceedance	65.75%
Average Exceedance Factor	1.12

FRESHWATER REGIME DATA

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR CADMIUM WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Cadmium Total EMC (a) DL = 0.2 (b) [µg/l]		Cadmium Dissolved EMC DL = 0.2 [µg/l]		ACUTE			
							Total Objective A = 1.128 B = -3.838 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 1.128 B = -3.838 [µg/l]	Exceedance Factor (c) DISSOLVED
SC-S1	SE02	110	2.0		-		4.3	0.5	4.1	-
SC-S1	SE03	240	0.7		-		10.4	0.1	9.5	-
SC-S1	SE05	60	4.0		-		2.2	1.8	2.1	-
SC-S1	SE06	76	1.0		0.2		2.8	0.4	2.7	0.1
SC-S1	SE07	48	1.5		<0.2	d	1.7	0.9	1.7	0.1
SC-S1	SE08	34	0.5		-		1.1	0.4	1.1	-
SC-S1	SE10	76	0.7		-		2.8	0.2	2.7	-
SC-S1	SE11	35	0.6		<0.2	d	1.2	0.5	1.2	0.2
SC-S1	SE13	71	0.6		<0.2	d	2.6	0.2	2.5	0.1
SC-S1	SE14	62	0.4		0.2		2.3	0.2	2.2	0.1
SC-S1	SE15	94	0.3		<0.2	d	3.6	0.1	3.4	0.1
SC-S1	SE17	73	0.4		0.2		2.7	0.1	2.6	0.1
SC-S1	SE18	130	1.9		<0.2	d	5.2	0.4	4.9	0.0
SC-S1	SE19	63	0.5		<0.2	d	2.3	0.2	2.2	0.1
SC-S1	SE20	110	0.8		<0.2	d	4.3	0.2	4.1	0.0
SC-S1	SE23	130	1.3		0.2		5.2	0.2	4.9	0.0
SC-S1	SE26	76	0.4		<0.2	d	2.8	0.1	2.7	0.1
SC-S1	SE27	130	0.7		<0.2	d	5.2	0.1	4.9	0.0
SC-S1	SE28	77	0.6		<0.2	d	2.9	0.2	2.8	0.1
SC-S2	SE02	330	2.0		-		14.9	0.1	13.3	-
SC-S2	SE03	120	6.0		-		4.8	1.3	4.5	-
SC-S2	SE05	76	4.0		-		2.8	1.4	2.7	-
SC-S2	SE06	88	1.0		0.3		3.4	0.3	3.2	0.1
SC-S2	SE07	77	2.0		<0.2	d	2.9	0.7	2.8	0.1
SC-S2	SE08	21	0.6		-		0.8	0.7	0.8	-
SC-S2	SE10	65	0.7		-		2.4	0.3	2.3	-
SC-S2	SE11	48	0.7		<0.2	d	1.7	0.4	1.7	0.1
SC-S2	SE14	53	0.6		0.3		1.9	0.3	1.8	0.2
SC-S2	SE15	54	0.3		<0.2	d	1.9	0.2	1.9	0.1
SC-S2	SE16	290	1.4		<0.2	d	12.9	0.1	11.6	0.0
SC-S2	SE18	140	1.9		<0.2	d	5.7	0.3	5.3	0.0
SC-S2	SE19	58	0.5		<0.2	d	2.1	0.2	2.0	0.1
SC-S2	SE20	100	1.0		<0.2	d	3.9	0.3	3.7	0.1
SC-S2	SE23	160	1.6		<0.2	d	6.6	0.2	6.1	0.0
SC-S2	SE25	51	0.5		<0.2	d	1.8	0.3	1.8	0.1
SC-S2	SE26	77	0.5		<0.2	d	2.9	0.2	2.8	0.1
SC-S2	SE27	75	0.8		<0.2	d	2.8	0.3	2.7	0.1
SC-S2	SE28	120	1.2		<0.2	d	4.8	0.3	4.5	0.0
SC-S3	SE02	180	0.9		-		7.5	0.1	6.9	-
SC-S3	SE03	108	0.7		-		4.2	0.2	4.0	-
SC-S3	SE05	95	4.0		-		3.7	1.1	3.5	-
SC-S3	SE06	180	0.9		0.2		7.5	0.1	6.9	0.0
SC-S3	SE08	73	0.9		-		2.7	0.3	2.6	-
SC-S3	SE10	170	0.7		-		7.1	0.1	6.5	-
SC-S3	SE11	94	0.8		<0.2	d	3.6	0.2	3.4	0.1
SC-S3	SE12	150	0.3		0.3		6.1	0.0	5.7	0.1
SC-S3	SE13	240	0.4		<0.2	d	10.4	0.0	9.5	0.0
SC-S3	SE14	71	0.5		<0.2	d	2.6	0.2	2.5	0.1
SC-S3	SE15	64	0.4		0.2		2.3	0.2	2.3	0.1
SC-S3	SE18	160	3.1		<0.2	d	6.6	0.5	6.1	0.0
SC-S3	SE19	110	0.7		<0.2	d	4.3	0.2	4.1	0.0
SC-S3	SE20	76	0.7		<0.2	d	2.8	0.2	2.7	0.1
SC-S3	SE23	120	1.3		<0.2	d	4.8	0.3	4.5	0.0
SC-S3	SE25	110	0.3		<0.2	d	4.3	0.1	4.1	0.0
SC-S3	SE26	150	0.2		<0.2	d	6.1	0.0	5.7	0.0
SC-S3	SE27	130	0.4		<0.2	d	5.2	0.1	4.9	0.0
SC-S3	SE28	140	0.8		<0.2	d	5.7	0.1	5.3	0.0
SC-S3	SE34	130	<0.2	d	<0.2	d	5.2	0.0	4.9	0.0
SC-S3	SE35	78	<0.2	d	<0.2	d	2.9	0.1	2.8	0.1
SC-S3	SE36	110	0.4		<0.2	d	4.3	0.1	4.1	0.0
SC-S3	SE37	140	<0.2	d	<0.2	d	5.7	0.0	5.3	0.0
SC-S3	SE39	220	<0.2	d	<0.2	d	9.4	0.0	8.6	0.0

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR CADMIUM WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Cadmium Total EMC (a) DL = 0.2 (b) [µg/l]		Cadmium Dissolved EMC DL = 0.2 [µg/l]		ACUTE			
							Total Objective A = 1.128 B = -3.838 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 1.128 B = -3.838 [µg/l]	Exceedance Factor (c) DISSOLVED
SC-S4	SE02	190	3.0		-		8.0	0.4	7.3	-
SC-S4	SE05	140	4.0		-		5.7	0.7	5.3	-
SC-S4	SE06	140	1.0		0.2		5.7	0.2	5.3	0.0
SC-S4	SE07	200	4.0		<0.2	d	8.5	0.5	7.8	0.0
SC-S4	SE08	86	0.9		-		3.3	0.3	3.1	-
SC-S4	SE09	105	0.9		-		4.1	0.2	3.9	-
SC-S4	SE10	170	0.7		-		7.1	0.1	6.5	-
SC-S4	SE11	79	0.8		<0.2	d	3.0	0.3	2.8	0.1
SC-S4	SE14	112	1.9		0.5		4.4	0.4	4.1	0.1
SC-S4	SE15	64	0.8		<0.2	d	2.3	0.3	2.3	0.1
SC-S4	SE16	130	0.6		<0.2	d	5.2	0.1	4.9	0.0
SC-S4	SE18	160	1.6		<0.2	d	6.6	0.2	6.1	0.0
SC-S4	SE19	140	0.6		<0.2	d	5.7	0.1	5.3	0.0
SC-S4	SE20	92	0.7		<0.2	d	3.5	0.2	3.3	0.1
SC-S4	SE21	390	0.2		0.2		18.0	0.0	16.0	0.0
SC-S4	SE22	370	0.3		<0.2	d	17.0	0.0	15.1	0.0
SC-S4	SE23	130	1.2		<0.2	d	5.2	0.2	4.9	0.0
SC-S4	SE24	82	0.9		<0.2	d	3.1	0.3	3.0	0.1
SC-S4	SE25	160	0.4		<0.2	d	6.6	0.1	6.1	0.0
SC-S4	SE26	160	0.5		<0.2	d	6.6	0.1	6.1	0.0
SC-S4	SE27	130	0.8		<0.2	d	5.2	0.2	4.9	0.0
SC-S4	SE28	150	0.6		<0.2	d	6.1	0.1	5.7	0.0
SC-S4	SE34	260	0.6		<0.2	d	11.4	0.1	10.3	0.0
SC-S4	SE35	98	<0.2	d	<0.2	d	3.8	0.1	3.6	0.1
SC-S4	SE36	140	0.4		<0.2	d	5.7	0.1	5.3	0.0
SC-S4	SE37	150	0.5		<0.2	d	6.1	0.1	5.7	0.0
SC-S4	SE38	280	0.9		<0.2	d	12.4	0.1	11.2	0.0

	TOTAL	DISSOLVED
Total Exceedances:	**4**	**0**
Percent Exceedance:	**4%**	**0%**
Average Exceedance Factor:	**0.27**	**0.06**

a EMC = Event Mean Concentration = Flow Composite Sample

b DL = Detection Limit

c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), for total metals, from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
exp(A*ln(TH)+B)*(1.136672-(0.041838*ln(TH)), dissolved, from EPA Federal Register 40 CFR Part 131 May 4, 1995

d Sample < DL, Exceedance Factor is conservative estimate

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR CHROMIUM WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Chromium Total EMC (a) DL = 1.0 (b) [µg/l]	Chromium Dissolved EMC DL = 1.0 [µg/l]	ACUTE			
					Total Objective A = 0.819 B = 3.688 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 0.819 B = 3.688 [µg/l]	Exceedance Factor (c) DISSOLVED
SC-S1	SE02	110	46.0	-	1877	0.0	593	-
SC-S1	SE03	240	2.0	-	3557	0.0	1124	-
SC-S1	SE05	60	19.0	-	1143	0.0	361	-
SC-S1	SE06	76	26.0	1.0	1387	0.0	438	0.0
SC-S1	SE07	48	31.5	1.0	952	0.0	301	0.0
SC-S1	SE11	35	17.0	-	735	0.0	232	-
SC-S1	SE13	71	33.0	-	1312	0.0	415	-
SC-S1	SE14	62	72.0	-	1174	0.1	371	-
SC-S1	SE15	94	200.0	-	1651	0.1	522	-
SC-S1	SE17	73	76.0	-	1342	0.1	424	-
SC-S1	SE18	130	56.0	-	2153	0.0	680	-
SC-S1	SE19	63	23.0	-	1189	0.0	376	-
SC-S1	SE20	110	87.0	-	1877	0.0	593	-
SC-S1	SE23	130	96.0	-	2153	0.0	680	-
SC-S1	SE26	76	29.0	-	1387	0.0	438	-
SC-S1	SE27	130	130.0	-	2153	0.1	680	-
SC-S1	SE28	77	26.0	-	1402	0.0	443	-
SC-S2	SE02	330	93.0	-	4617	0.0	1459	-
SC-S2	SE03	120	4.0	-	2016	0.0	637	-
SC-S2	SE05	76	26.0	-	1387	0.0	438	-
SC-S2	SE06	88	29.0	1.0	1564	0.0	494	0.0
SC-S2	SE07	77	50.0	1.0	1402	0.0	443	0.0
SC-S2	SE11	48	9.0	-	952	0.0	301	-
SC-S2	SE14	53	34.0	-	1032	0.0	326	-
SC-S2	SE15	54	32.0	-	1048	0.0	331	-
SC-S2	SE16	290	34.0	-	4153	0.0	1312	-
SC-S2	SE18	140	36.0	-	2287	0.0	723	-
SC-S2	SE19	58	8.7	-	1112	0.0	351	-
SC-S2	SE20	100	29.0	-	1737	0.0	549	-
SC-S2	SE23	160	43.0	-	2552	0.0	806	-
SC-S2	SE25	51	12.0	-	1000	0.0	316	-
SC-S2	SE26	77	9.7	-	1402	0.0	443	-
SC-S2	SE27	75	33.0	-	1372	0.0	434	-
SC-S2	SE28	120	19.0	-	2016	0.0	637	-
SC-S3	SE02	180	115.0	-	2810	0.0	888	-
SC-S3	SE03	108	8.5	-	1849	0.0	584	-
SC-S3	SE05	95	35.0	-	1665	0.0	526	-
SC-S3	SE06	180	19.5	2.0	2810	0.0	888	0.0
SC-S3	SE11	94	31.0	-	1651	0.0	522	-
SC-S3	SE12	150	5.6	-	2420	0.0	765	-
SC-S3	SE13	240	16.0	-	3557	0.0	1124	-
SC-S3	SE14	71	94.0	-	1312	0.1	415	-
SC-S3	SE15	64	68.0	-	1205	0.1	381	-
SC-S3	SE18	160	54.0	-	2552	0.0	806	-
SC-S3	SE19	110	25.0	-	1877	0.0	593	-
SC-S3	SE20	76	32.0	-	1387	0.0	438	-
SC-S3	SE23	120	51.0	-	2016	0.0	637	-
SC-S3	SE25	110	40.0	-	1877	0.0	593	-
SC-S3	SE26	150	17.0	-	2420	0.0	765	-
SC-S3	SE27	130	56.0	-	2153	0.0	680	-
SC-S3	SE28	140	21.0	-	2287	0.0	723	-
SC-S3	SE34	130	5.7	-	2153	0.0	680	-
SC-S3	SE35	78	15.0	-	1417	0.0	448	-
SC-S3	SE36	110	11.0	-	1877	0.0	593	-
SC-S3	SE37	140	23.0	-	2287	0.0	723	-
SC-S3	SE39	220	3.9	-	3312	0.0	1047	-

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR CHROMIUM WITH STORMWATER RUNOFF

		Total	Chromium Total	Chromium Dissolved	ACUTE			
Station ID/ Storm Event		Hardness as CaCO3 [mg/l]	EMC (a) DL = 1.0 (b) [µg/l]	EMC DL = 1.0 [µg/l]	Total Objective A = 0.819 B = 3.688 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 0.819 B = 3.688 [µg/l]	Exceedance Factor (c) DISSOLVED
SC-S4	SE02	190	102.5	-	2937	0.0	928	-
SC-S4	SE05	140	23.0	-	2287	0.0	723	-
SC-S4	SE06	140	27.0	1.0	2287	0.0	723	0.0
SC-S4	SE07	200	73.0	1.0	3064	0.0	968	0.0
SC-S4	SE11	79	14.0	-	1432	0.0	452	-
SC-S4	SE14	112	28.0	-	1905	0.0	602	-
SC-S4	SE15	64	30.0	-	1205	0.0	381	-
SC-S4	SE16	130	21.0	-	2153	0.0	680	-
SC-S4	SE18	160	40.0	-	2552	0.0	806	-
SC-S4	SE19	140	17.0	-	2287	0.0	723	-
SC-S4	SE20	92	20.0	-	1622	0.0	1622	-
SC-S4	SE21	390	22.0	-	5294	0.0	5294	-
SC-S4	SE22	370	12.0	-	5070	0.0	5070	-
SC-S4	SE23	130	39.0	-	2153	0.0	2153	-
SC-S4	SE24	82	40.0	< 1 d	1476	0.0	1476	0.0
SC-S4	SE25	160	18.0	-	2552	0.0	2552	-
SC-S4	SE26	160	90.0	-	2552	0.0	2552	-
SC-S4	SE27	130	74.0	-	2153	0.0	2153	-
SC-S4	SE28	150	23.0	-	2420	0.0	2420	-
SC-S4	SE34	260	7.7	-	3798	0.0	3798	-
SC-S4	SE35	98	5.4	-	1708	0.0	1708	-
SC-S4	SE36	140	6.2	-	2287	0.0	2287	-
SC-S4	SE37	150	8.5	-	2420	0.0	2420	-
SC-S4	SE38	280	7.7	-	4036	0.0	4036	-

Total Exceedances:	0	0
Percent Exceedance:	0%	0%
Average Exceedance Factor:	0.02	0.00

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), for total metals, from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
0.316*exp(A*ln(TH)+B), for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995
d Sample < DL, Exceedance Factor is conservative estimate

Water Quality Objectives based on Chromium 3+

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR COPPER WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Copper Total EMC (a) DL = 1.0 (b) [µg/l]	Copper Dissolved EMC DL = 1.0 [µg/l]	ACUTE			
					Total Objective A = 0.9422 B = -1.464 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 0.9422 B = -1.464 [µg/l]	Exceedance Factor (c) DISSOLVED
SC-S1	SE02	110	95.0	-	19.4	4.9	18.6	-
SC-S1	SE03	240	< 1 d	-	40.4	0.0	38.8	-
SC-S1	SE05	60	32.0	-	11.0	2.9	10.5	-
SC-S1	SE06	76	44.0	10.0	13.7	3.2	13.1	0.8
SC-S1	SE07	48	58.0	7.5	8.9	6.5	8.5	0.9
SC-S1	SE08	34	32.0	-	6.4	5.0	6.2	-
SC-S1	SE10	76	27.0	-	13.7	2.0	13.1	-
SC-S1	SE11	35	20.0	4.0	6.6	3.0	6.3	0.6
SC-S1	SE13	71	37.0	9.0	12.8	2.9	12.3	0.7
SC-S1	SE14	62	65.0	5.6	11.3	5.8	10.8	0.5
SC-S1	SE15	94	125.0	6.2	16.7	7.5	16.1	0.4
SC-S1	SE17	73	-	3.9	13.2	-	12.6	0.3
SC-S1	SE18	130	95.0	9.0	22.7	4.2	21.8	0.4
SC-S1	SE19	63	29.0	7.4	11.5	2.5	11.0	0.7
SC-S1	SE20	110	64.0	5.0	19.4	3.3	18.6	0.3
SC-S1	SE23	130	82.0	10.0	22.7	3.6	21.8	0.5
SC-S1	SE26	76	21.0	6.0	13.7	1.5	13.1	0.5
SC-S1	SE27	130	83.0	3.7	22.7	3.7	21.8	0.2
SC-S1	SE28	77	29.0	5.0	13.9	2.1	13.3	0.4
SC-S2	SE02	330	320.0	-	54.6	5.9	52.4	-
SC-S2	SE03	120	3.0	-	21.0	0.1	20.2	-
SC-S2	SE05	76	60.0	-	13.7	4.4	13.1	-
SC-S2	SE06	88	50.0	11.0	15.7	3.2	15.1	0.7
SC-S2	SE07	77	60.0	8.0	13.9	4.3	13.3	0.6
SC-S2	SE08	21	24.0	-	4.8	5.0	4.6	-
SC-S2	SE10	65	28.0	-	11.8	2.4	11.3	-
SC-S2	SE11	48	23.0	6.0	8.9	2.6	8.5	0.7
SC-S2	SE14	53	44.0	9.4	9.7	4.5	9.4	1.0
SC-S2	SE15	54	37.0	6.3	9.9	3.7	9.5	0.7
SC-S2	SE16	290	55.0	4.0	48.3	1.1	46.4	0.1
SC-S2	SE18	140	96.0	8.0	24.3	3.9	23.4	0.3
SC-S2	SE19	58	29.0	9.9	10.6	2.7	10.2	1.0
SC-S2	SE20	100	58.0	4.0	17.7	3.3	17.0	0.2
SC-S2	SE23	160	100.0	5.5	27.6	3.6	26.5	0.2
SC-S2.	SE25	51	27.0	5.0	9.4	2.9	9.0	0.6
SC-S2	SE26	77	24.0	11.0	13.9	1.7	13.3	0.8
SC-S2	SE27	75	62.0	3.3	13.5	4.6	13.0	0.3
SC-S2	SE28	120	60	4.8	21.0	2.9	20.2	0.2
SC-S3	SE02	180	160.0	-	30.8	5.2	29.6	-
SC-S3	SE03	108	4.0	-	19.1	0.2	18.3	-
SC-S3	SE05	95	52.5	-	16.9	3.1	16.2	-
SC-S3	SE06	180	41.5	8.0	30.8	1.3	29.6	0.3
SC-S3	SE08	73	47.0	-	13.2	3.6	12.6	-
SC-S3	SE10	170	35.0	-	29.2	1.2	28.1	-
SC-S3	SE11	94	30.0	4.0	16.7	1.8	16.1	0.2
SC-S3	SE12	150	5.6	6.6	26.0	0.2	24.9	0.3
SC-S3	SE13	240	18.5	4.0	40.4	0.5	38.8	0.1
SC-S3	SE14	71	53.0	5.0	12.8	4.1	12.3	0.4
SC-S3	SE15	64	37.0	31.0	11.6	3.2	11.2	2.8
SC-S3	SE18	160	120.0	6.0	27.6	4.3	26.5	0.2
SC-S3	SE19	110	35.0	5.0	19.4	1.8	18.6	0.3
SC-S3	SE20	76	33.0	4.0	13.7	2.4	13.1	0.3
SC-S3	SE23	120	54.0	2.8	21.0	2.6	20.2	0.1
SC-S3	SE25	110	18.0	5.8	19.4	0.9	18.6	0.3
SC-S3	SE26	150	7.9	3.2	26.0	0.3	24.9	0.1
SC-S3	SE27	130	20.0	2.5	22.7	0.9	21.8	0.1
SC-S3	SE28	140	24.0	4.1	24.3	1.0	23.4	0.2
SC-S3	SE34	130	17.0	6.3	22.7	0.7	21.8	0.3
SC-S3	SE35	78	5.8	1.1	14.0	0.4	13.5	0.1
SC-S3	SE36	110	20.0	2.7	19.4	1.0	18.6	0.1
SC-S3	SE37	140	9.6	3.1	24.3	0.4	23.4	0.1
SC-S3	SE39	220	8.2	4.3	37.3	0.2	35.8	0.1

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR COPPER WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Copper Total EMC (a) DL = 1.0 (b) [µg/l]	Copper Dissolved EMC DL = 1.0 [µg/l]	ACUTE			
					Total Objective A = 0.9422 B = -1.464 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 0.9422 B = -1.464 [µg/l]	Exceedance Factor (c) DISSOLVED
SC-S4	SE02	190	131.0	-	32.5	4.0	31.2	-
SC-S4	SE05	140	35.0	-	24.3	1.4	23.4	-
SC-S4	SE06	140	27.0	7.0	24.3	1.1	23.4	0.3
SC-S4	SE07	200	110.0	6.0	34.1	3.2	32.7	0.2
SC-S4	SE08	86	33.0	-	15.4	2.1	14.8	-
SC-S4	SE09	105	33.0	-	18.6	1.8	17.8	-
SC-S4	SE10	170	26.0	-	29.2	0.9	28.1	-
SC-S4	SE11	79	21.0	3.0	14.2	1.5	13.6	0.2
SC-S4	SE14	112	36.0	4.4	19.7	1.8	18.9	0.2
SC-S4	SE15	64	27.0	4.5	11.6	2.3	11.2	0.4
SC-S4	SE16	130	20.5	3.7	22.7	0.9	21.8	0.2
SC-S4	SE18	160	64.0	6.0	27.6	2.3	26.5	0.2
SC-S4	SE19	140	24.0	5.5	24.3	1.0	23.4	0.2
SC-S4	SE20	92	26.0	4.0	16.4	1.6	15.7	0.3
SC-S4	SE21	390	13.0	8.0	63.9	0.2	61.3	0.1
SC-S4	SE22	370	12.0	7.0	60.8	0.2	58.4	0.1
SC-S4	SE23	130	43.0	5.6	22.7	1.9	21.8	0.3
SC-S4	SE24	82	32.0	-	14.7	2.2	14.1	-
SC-S4	SE25	160	20.0	4.8	27.6	0.7	26.5	0.2
SC-S4	SE26	160	23.0	5.1	27.6	0.8	26.5	0.2
SC-S4	SE27	130	30.0	2.8	22.7	1.3	21.8	0.1
SC-S4	SE28	150	22.0	3.1	26.0	0.8	24.9	0.1
SC-S4	SE34	260	26.0	9.9	43.6	0.6	41.9	0.2
SC-S4	SE35	98	5.8	3.1	17.4	0.3	16.7	0.2
SC-S4	SE36	140	19.0	2.5	24.3	0.8	23.4	0.1
SC-S4	SE37	150	18.0	2.4	26.0	0.7	24.9	0.1
SC-S4	SE38	280	34.0	3.1	46.8	0.7	44.9	0.1
					Total Exceedances:	**63**		**2**
					Percent Exceedance:	**71%**		**3%**
					Average Exceedance Factor:	**2.34**		**0.37**

a EMC = Event Mean Concentration = Flow Composite Sample

b DL = Detection Limit

c Exceedance Factor = EMC/Water Quality Objective

Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), for total metals, from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
0.960*exp(A*ln(TH)+B), for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995

d Sample < DL, Exceedance Factor is conservative estimate

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR LEAD WITH STORMWATER RUNOFF

						ACUTE			
Station ID/ Storm Event		**Total Hardness as CaCO3 [mg/l]**	**Lead Total EMC (a) DL = 1.0 (b) [µg/l]**	**Lead Dissolved EMC DL = 1.0 [µg/l]**		**Total Objective A = 1.273 B = -1.46 [µg/l]**	**Exceedance Factor (c) TOTAL**	**Dissolved Objective A = 1.273 B = -1.46 [µg/l]**	**Exceedance Factor (c) DISSOLVED**
SC-S1	SE02	110	99.0	-		92.2	1.1	71.6	-
SC-S1	SE03	240	4.0	-		248.9	0.0	165.1	-
SC-S1	SE05	60	32.0	-		42.6	0.8	36.9	-
SC-S1	SE06	76	5.0	< 1	d	57.6	0.1	47.8	0.0
SC-S1	SE07	48	80.0	< 1	d	32.1	2.5	28.8	0.0
SC-S1	SE08	34	24.0	-		20.7	1.2	19.6	-
SC-S1	SE10	76	34.0	-		57.6	0.6	47.8	-
SC-S1	SE11	35	21.0	3.0		21.5	1.0	20.3	0.1
SC-S1	SE13	71	20.0	2.3		52.8	0.4	44.4	0.0
SC-S1	SE14	62	79.0	2.1		44.4	1.8	38.2	0.0
SC-S1	SE15	94	67.0	2.3		75.5	0.9	60.4	0.0
SC-S1	SE17	73	22.0	< 1	d	54.7	0.4	45.8	0.0
SC-S1	SE18	130	70.0	2.0		114.0	0.6	85.8	0.0
SC-S1	SE19	63	24.0	1.3		45.3	0.5	38.9	0.0
SC-S1	SE20	110	46.0	< 1	d	92.2	0.5	71.6	0.0
SC-S1	SE23	130	64.0	4.0		114.0	0.6	85.8	0.0
SC-S1	SE26	76	18.0	< 1	d	57.6	0.3	47.8	0.0
SC-S1	SE27	130	44.0	< 1	d	114.0	0.4	85.8	0.0
SC-S1	SE28	77	28.0	< 1	d	58.5	0.5	48.5	0.0
SC-S2	SE02	330	270.0	-		373.2	0.7	230.3	-
SC-S2	SE03	120	1.0	-		103.0	0.0	78.7	-
SC-S2	SE05	76	81.0	-		57.6	1.4	47.8	-
SC-S2	SE06	88	35.0	< 1	d	69.4	0.5	56.2	0.0
SC-S2	SE07	77	50.0	< 1	d	58.5	0.9	48.5	0.0
SC-S2	SE08	21	35.0	-		14.0	2.5	13.9	-
SC-S2	SE10	65	29.0	-		47.2	0.6	40.3	-
SC-S2	SE11	48	28.0	3.0		32.1	0.9	28.8	0.1
SC-S2	SE14	53	73.0	5.7		36.4	2.0	32.1	0.2
SC-S2	SE15	54	50.0	2.6		37.3	1.3	32.8	0.1
SC-S2	SE16	290	65.0	1.9		316.6	0.2	201.3	0.0
SC-S2	SE18	140	91.0	3.0		125.3	0.7	93.0	0.0
SC-S2	SE19	58	32.0	2.6		40.8	0.8	35.5	0.1
SC-S2	SE20	100	80.0	< 1	d	81.6	1.0	64.6	0.0
SC-S2	SE23	160	120.0	< 1	d	148.5	0.8	107.3	0.0
SC-S2	SE25	51	33.0	< 1	d	34.6	1.0	30.8	0.0
SC-S2	SE26	77	36.0	< 1	d	58.5	0.6	48.5	0.0
SC-S2	SE27	75	96.0	< 1	d	56.6	1.7	47.2	0.0
SC-S2	SE28	120	76.0	< 1	d	103.0	0.7	78.7	0.0
SC-S3	SE02	180	275.0	-		172.5	1.6	121.7	-
SC-S3	SE03	108	4.5	-		90.0	0.0	70.2	-
SC-S3	SE05	95	74.5	-		76.5	1.0	61.1	-
SC-S3	SE06	180	31.0	< 1	d	172.5	0.2	121.7	0.0
SC-S3	SE08	73	49.0	-		54.7	0.9	45.8	-
SC-S3	SE10	170	30.0	-		160.4	0.2	114.5	-
SC-S3	SE11	94	37.0	5.0		75.5	0.5	60.4	0.1
SC-S3	SE12	150	3.0	< 1		136.8	0.0	100.1	0.0
SC-S3	SE13	240	12.5	< 1	d	248.9	0.1	165.1	0.0
SC-S3	SE14	71	85.0	< 1	d	52.8	1.6	44.4	0.0
SC-S3	SE15	64	47.0	3.2		46.3	1.0	39.6	0.1
SC-S3	SE18	160	140.0	3.0		148.5	0.9	107.3	0.0
SC-S3	SE19	110	39.0	1.1		92.2	0.4	71.6	0.0
SC-S3	SE20	76	43.0	< 1	d	57.6	0.7	47.8	0.0
SC-S3	SE23	120	63.0	< 1	d	103.0	0.6	78.7	0.0
SC-S3	SE25	110	21.0	< 1	d	92.2	0.2	71.6	0.0
SC-S3	SE26	150	13.0	< 1	d	136.8	0.1	100.1	0.0
SC-S3	SE27	130	30.0	< 1	d	114.0	0.3	85.8	0.0
SC-S3	SE28	140	34.0	< 1	d	125.3	0.3	93.0	0.0
SC-S3	SE34	130	13.0	1.1		114.0	0.1	85.8	0.0
SC-S3	SE35	78	3.6	< 1	d	59.5	0.1	49.2	0.0
SC-S3	SE36	110	50.0	< 1	d	92.2	0.5	71.6	0.0
SC-S3	SE37	140	11.0	1.0		125.3	0.1	93.0	0.0
SC-S3	SE39	220	6.4	< 1	d	222.8	0.0	150.6	0.0

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR LEAD WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Lead Total EMC (a) DL = 1.0 (b) [µg/l]	Lead Dissolved EMC DL = 1.0 [µg/l]		ACUTE			
						Total Objective A = 1.273 B = -1.46 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 1.273 B = -1.46 [µg/l]	Exceedance Factor (c) DISSOLVED
SC-S4	SE02	190	190.0	-		184.8	1.0	128.9	-
SC-S4	SE05	140	35.0	-		125.3	0.3	93.0	-
SC-S4	SE06	140	15.0	< 1	d	125.3	0.1	93.0	0.0
SC-S4	SE07	200	130.0	< 1	d	197.3	0.7	136.1	0.0
SC-S4	SE08	86	32.0	-		67.4	0.5	54.8	-
SC-S4	SE09	105	40.5	-		86.9	0.5	68.1	-
SC-S4	SE10	170	18.0	-		160.4	0.1	114.5	-
SC-S4	SE11	79	28.0	6.0		60.5	0.5	49.9	0.1
SC-S4	SE14	112	40.0	2.3		94.3	0.4	73.0	0.0
SC-S4	SE15	64	38.0	12.0		46.3	0.8	39.6	0.3
SC-S4	SE16	130	21.0	1.7		114.0	0.2	85.8	0.0
SC-S4	SE18	160	59.0	2.0		148.5	0.4	107.3	0.0
SC-S4	SE19	140	26.0	< 1	d	125.3	0.2	93.0	0.0
SC-S4	SE20	92	30.0	< 1	d	73.4	0.4	59.0	0.0
SC-S4	SE21	390	14.0	< 1	d	461.7	0.0	273.6	0.0
SC-S4	SE22	370	8.0	< 1	d	431.8	0.0	259.2	0.0
SC-S4	SE23	130	60.0	5.0		114.0	0.5	85.8	0.0
SC-S4	SE24	82	60.0	< 1	d	63.4	0.9	52.0	0.0
SC-S4	SE25	160	27.0	< 1	d	148.5	0.2	107.3	0.0
SC-S4	SE26	160	28.0	< 1	d	148.5	0.2	107.3	0.0
SC-S4	SE27	130	42.0	< 1	d	114.0	0.4	85.8	0.0
SC-S4	SE28	150	25.0	< 1	d	136.8	0.2	100.1	0.0
SC-S4	SE34	260	19.0	< 1	d	275.5	0.1	179.6	0.0
SC-S4	SE35	98	3.7	< 1	d	79.6	0.0	63.2	0.0
SC-S4	SE36	140	41.0	< 1	d	125.3	0.3	93.0	0.0
SC-S4	SE37	150	32.0	< 1	d	136.8	0.2	100.1	0.0
SC-S4	SE38	280	110.0	< 1	d	302.8	0.4	194.1	0.0

Total Exceedances:	**13**	**0**
Percent Exceedance:	**15%**	**0%**
Average Exceedance Factor:	**0.60**	**0.03**

a	**EMC = Event Mean Concentration = Flow Composite Sample**
b	**DL = Detection Limit**
c	**Exceedance Factor = EMC/Water Quality Objective** **Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as: exp(A*ln(TH)+B), for total metals, from San Francisco Bay Region (2), Water Quality Control Plan, December 1986 (exp(A*ln(TH)+B))*(1.46203-0.145712*ln(TH)), dissolved, from EPA Federal Register 40 CFR Part 131 May 4, 1995**
d	**Sample < DL, Exceedance Factor is conservative estimate**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR MERCURY WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Mercury Total EMC (a) DL = 0.2 (b) [µg/l]		Mercury Dissolved EMC DL = 0.2 [µg/l]		ACUTE	
							Exceedance Factor (c) TOTAL OBJ=2.4 µg/l	Exceedance Factor (c) DISSOLVED OBJ=2.1 µg/l
SC-S1	SE02	110	2.0		-		0.8	-
SC-S1	SE03	240	< 0.2	d	-		0.1	-
SC-S1	SE05	60	< 0.2	d	-		0.1	-
SC-S1	SE06	76	0.2		< 0.2	d	0.1	0.1
SC-S1	SE07	48	0.2		< 0.2	d	0.1	0.1
SC-S1	SE08	34	0.2		-		0.1	-
SC-S1	SE10	76	0.2		-		0.1	-
SC-S1	SE11	35	0.4		-		0.2	-
SC-S1	SE13	71	< 0.2	d	-		0.1	-
SC-S1	SE14	62	< 0.2	d	-		0.1	-
SC-S1	SE15	94	0.2		-		0.1	-
SC-S1	SE17	73	< 0.2	d	-		0.1	-
SC-S1	SE18	130	< 0.2	d	-		0.1	-
SC-S1	SE19	63	< 0.2	d	-		0.1	-
SC-S1	SE20	110	0.2		-		0.1	-
SC-S1	SE23	130	< 0.2	d	< 0.2	d	0.1	0.1
SC-S1	SE26	76	0.3		< 0.2	d	0.1	0.1
SC-S1	SE27	130	< 0.2	d	< 0.2	d	0.1	0.1
SC-S1	SE28	77	< 0.2	d	-		0.1	-
SC-S2	SE02	330	3.0		-		1.3	-
SC-S2	SE03	120	< 0.2	d	-		0.1	-
SC-S2	SE05	76	< 0.2	d	-		0.1	-
SC-S2	SE06	88	< 0.2	d	< 0.2	d	0.1	0.1
SC-S2	SE07	77	< 0.2	d	< 0.2	d	0.1	0.1
SC-S2	SE08	21	< 0.2	d	-		0.1	-
SC-S2	SE10	65	0.2		-		0.1	-
SC-S2	SE11	48	< 0.2	d	-		0.1	-
SC-S2	SE14	53	< 0.2	d	-		0.1	-
SC-S2	SE15	54	< 0.2	d	-		0.1	-
SC-S2	SE16	290	< 0.2	d	-		0.1	-
SC-S2	SE18	140	< 0.2	d	-		0.1	-
SC-S2	SE19	58	< 0.2	d	-		0.1	-
SC-S2	SE20	100	< 0.2	d	-		0.1	-
SC-S2	SE23	160	< 0.2	d	< 0.2	d	0.1	0.1
SC-S2	SE25	51	< 0.2	d	< 0.2	d	0.1	0.1
SC-S2	SE26	77	0.3		< 0.2	d	0.1	0.1
SC-S2	SE27	75	< 0.2	d	< 0.2	d	0.1	0.1
SC-S2	SE28	120	< 0.2	d	-		0.1	-
SC-S3	SE02	180	4.0		-		1.7	-
SC-S3	SE03	108	< 0.2	d	-		0.1	-
SC-S3	SE05	95	< 0.2	d	-		0.1	-
SC-S3	SE06	180	< 0.2	d	< 0.2		0.1	0.1
SC-S3	SE08	73	0.5		-		0.2	-
SC-S3	SE10	170	0.5		-		0.2	-
SC-S3	SE11	94	0.7		-		0.3	-
SC-S3	SE12	150	< 0.2	d	-		0.1	-
SC-S3	SE13	240	< 0.2	d	-		0.1	-
SC-S3	SE14	71	< 0.2	d	-		0.1	-
SC-S3	SE15	64	< 0.2	d	-		0.1	-
SC-S3	SE18	160	< 0.2	d	-		0.1	-
SC-S3	SE19	110	< 0.2	d	-		0.1	-
SC-S3	SE20	76	< 0.2	d	-		0.1	-
SC-S3	SE23	120	< 0.2	d	< 0.2		0.1	0.1
SC-S3	SE25	110	< 0.2	d	< 0.2		0.1	0.1
SC-S3	SE26	150	0.6		< 0.2		0.3	0.1
SC-S3	SE27	130	< 0.2	d	< 0.2		0.1	0.1
SC-S3	SE28	140	< 0.2	d	-		0.1	-
SC-S3	SE34	130	< 0.2	d	-		0.1	-
SC-S3	SE35	78	< 0.2	d	-		0.1	-
SC-S3	SE36	110	< 0.2	d	-		0.1	-
SC-S3	SE37	140	< 0.2	d	-		0.1	-
SC-S3	SE39	220	< 0.2	d	-		0.1	-

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COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR MERCURY WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Mercury Total EMC (a) DL = 0.2 (b) [µg/l]		Mercury Dissolved EMC DL = 0.2 [µg/l]	ACUTE	
						Exceedance Factor (c) TOTAL OBJ=2.4 µg/l	Exceedance Factor (c) DISSOLVED OBJ=2.1 µg/l
SC-S4	SE02	190	3.5		-	1.5	-
SC-S4	SE05	140	<0.2	d	-	0.1	-
SC-S4	SE06	140	<0.2	d	<0.2	0.1	0.1
SC-S4	SE07	200	<0.2	d	<0.2	0.1	0.1
SC-S4	SE08	86	0.2		-	0.1	-
SC-S4	SE09	105	0.2		-	0.1	-
SC-S4	SE10	170	0.2		-	0.1	-
SC-S4	SE11	79	<0.2	d	-	0.1	-
SC-S4	SE14	112	<0.2	d	-	0.1	-
SC-S4	SE15	64	<0.2	d	-	0.1	-
SC-S4	SE16	130	<0.2	d	-	0.1	-
SC-S4	SE18	160	<0.2	d	-	0.1	-
SC-S4	SE19	140	<0.2	d	-	0.1	-
SC-S4	SE20	92	<0.2	d	-	0.1	-
SC-S4	SE21	390	<0.2	d	-	0.1	-
SC-S4	SE22	370	<0.2	d	-	0.1	-
SC-S4	SE23	130	<0.2	d	<0.2	0.1	0.1
SC-S4	SE24	82	<0.2	d	-	0.1	-
SC-S4	SE25	160	<0.2	d	<0.2	0.1	0.1
SC-S4	SE26	160	0.5		<0.2	0.2	0.1
SC-S4	SE27	130	<0.2	d	<0.2	0.1	0.1
SC-S4	SE28	150	<0.2	d	-	0.1	-
SC-S4	SE34	260	<0.2	d	-	0.1	-
SC-S4	SE35	98	<0.2	d	-	0.1	-
SC-S4	SE36	140	<0.2	d	-	0.1	-
SC-S4	SE37	150	<0.2	d	-	0.1	-
SC-S4	SE38	280	<0.2	d	-	0.1	-

Total Exceedances:	**3**	**0**
Percent Exceedance:	**3%**	**0%**
Average Exceedance Factor:	**0.14**	**0.10**

a	**EMC = Event Mean Concentration = Flow Composite Sample**
b	**DL = Detection Limit**
c	**Exceedance Factor = EMC/Water Quality Objective**
d	**Sample < DL, Exceedance Factor is conservative estimate**

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR NICKEL WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Nickel Total EMC (a) DL = 2.0 (b) [µg/l]		Nickel Dissolved EMC DL = 2.0 [µg/l]		ACUTE			
							Total Objective A = 0.846 B = 3.312 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 0.846 B = 3.312 [µg/l]	Exceedance Factor (c) DISSOLVED
SC-S1	SE02	110	60.0		-		1464	0.0	1461	-
SC-S1	SE03	240	3.0		-		2831.7	0.0	2826.0	-
SC-S1	SE05	60	< 2	d	-		876	0.0	875	-
SC-S1	SE06	76	100.0		< 2	d	1070	0.1	1068	0.0
SC-S1	SE07	48	100.0		5.0		726	0.1	724	0.0
SC-S1	SE08	34	37.0		-		542	0.1	541	-
SC-S1	SE10	76	19.0		-		1070	0.0	1068	-
SC-S1	SE11	35	39.0		-		555	0.1	554	-
SC-S1	SE13	71	25.0		-		1011	0.0	1009	-
SC-S1	SE14	62	100.0		-		901	0.1	899	-
SC-S1	SE15	94	245.0		-		1281	0.2	1279	-
SC-S1	SE17	73	103.5		-		1035	0.1	1032	-
SC-S1	SE18	130	180.0		-		1686	0.1	1682	-
SC-S1	SE19	63	50.0		-		913	0.1	911	-
SC-S1	SE20	110	200.0		-		1464	0.1	1461	-
SC-S1	SE23	130	170.0		-		1686	0.1	1682	-
SC-S1	SE26	76	62.0		-		1070	0.1	1068	-
SC-S1	SE27	130	310.0		-		1686	0.2	1682	-
SC-S1	SE28	77	61.0		-		1082	0.1	1080	-
SC-S2	SE02	330	120.0		-		3707	0.0	3700	-
SC-S2	SE03	120	< 2	d	-		1575.3	0.0	1572.2	-
SC-S2	SE05	76	18.0		-		1070	0.0	1068	-
SC-S2	SE06	88	120.0		< 2	d	1212	0.1	1209	0.0
SC-S2	SE07	77	90.0		5.0		1082	0.1	1080	0.0
SC-S2	SE08	21	16.0		-		417.9	0.0	417.0	-
SC-S2	SE10	65	12.0		-		938	0.0	936	-
SC-S2	SE11	48	23.0		-		726	0.0	724	-
SC-S2	SE14	53	35.0		-		789	0.0	788	-
SC-S2	SE15	54	33.0		-		802	0.0	800	-
SC-S2	SE16	290	62.0		-		3323	0.0	3317	-
SC-S2	SE18	140	61.0		-		1795	0.0	1791	-
SC-S2	SE19	58	30.0		-		852	0.0	850	-
SC-S2	SE20	100	45.0		-		1350	0.0	1347	-
SC-S2	SE23	160	73.0		-		2009	0.0	2005	-
SC-S2	SE25	51	16.0		-		764	0.0	762	-
SC-S2	SE26	77	15.0		-		1082	0.0	1080	-
SC-S2	SE27	75	60.0		-		1058	0.1	1056	-
SC-S2	SE28	120	47.0		-		1575	0.0	1572	-
SC-S3	SE02	180	160.0		-		2220	0.1	2216	-
SC-S3	SE03	108	3.5		-		1441	0.0	1438	-
SC-S3	SE05	95	64.0		-		1293	0.0	1290	-
SC-S3	SE06	180	65.0		5.5		2220	0.0	2216	0.0
SC-S3	SE08	73	69.0		-		1035	0.1	1032	-
SC-S3	SE10	170	53.0		-		2115	0.0	2111	-
SC-S3	SE11	94	96.0		-		1281	0.1	1279	-
SC-S3	SE12	150	10.0		-		1902.6	0.0	1898.8	-
SC-S3	SE13	240	28.5		-		2832	0.0	2826	-
SC-S3	SE14	71	130.0		-		1011	0.1	1009	-
SC-S3	SE15	64	110.0		-		926	0.1	924	-
SC-S3	SE18	160	190.0		-		2009	0.1	2005	-
SC-S3	SE19	110	79.0		-		1464	0.1	1461	-
SC-S3	SE20	76	88.0		-		1070	0.1	1068	-
SC-S3	SE23	120	110.0		-		1575	0.1	1572	-
SC-S3	SE25	110	77.0		-		1464	0.1	1461	-
SC-S3	SE26	150	40.0		-		1903	0.0	1899	-
SC-S3	SE27	130	160.0		-		1686	0.1	1682	-
SC-S3	SE28	140	70.0		-		1795	0.0	1791	-
SC-S3	SE34	130	14.0		-		1686	0.0	1682	-
SC-S3	SE35	78	7.2		-		1094	0.0	1092	-
SC-S3	SE36	110	24.0		-		1464	0.0	1461	-
SC-S3	SE37	140	22.0		-		1795	0.0	1791	-
SC-S3	SE39	220	9.0		-		2630.7	0.0	2625.4	-

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR NICKEL WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Nickel Total EMC (a) DL = 2.0 (b) [µg/l]	Nickel Dissolved EMC DL = 2.0 [µg/l]	ACUTE Total Objective A = 0.846 B = 3.312 [µg/l]	ACUTE Exceedance Factor (c) TOTAL	ACUTE Dissolved Objective A = 0.846 B = 3.312 [µg/l]	ACUTE Exceedance Factor (c) DISSOLVED
SC-S4	SE02	190	170.0	-	2324	0.1	2319	-
SC-S4	SE05	140	35.0	-	1795	0.0	1791	-
SC-S4	SE06	140	120.0	8.0	1795	0.1	1791	0.0
SC-S4	SE07	200	150.0	6.0	2427	0.1	2422	0.0
SC-S4	SE08	86	37.0	-	1188	0.0	1186	-
SC-S4	SE09	105	38.0	-	1407	0.0	1404	-
SC-S4	SE10	170	22.0	-	2115	0.0	2111	-
SC-S4	SE11	79	47.0	-	1106	0.0	1104	-
SC-S4	SE14	112	39.0	-	1486	0.0	1483	-
SC-S4	SE15	64	45.0	-	926	0.0	924	-
SC-S4	SE16	130	43.0	-	1686	0.0	1682	-
SC-S4	SE18	160	100.0	-	2009	0.0	2005	-
SC-S4	SE19	140	43.0	-	1795	0.0	1791	-
SC-S4	SE20	92	45.0	-	1258	0.0	1256	-
SC-S4	SE21	390	32.0	-	4270	0.0	4261	-
SC-S4	SE22	370	16.0	-	4084	0.0	4076	-
SC-S4	SE23	130	110.0	-	1686	0.1	1682	-
SC-S4	SE24	82	83.0	-	1141	0.1	1139	-
SC-S4	SE25	160	35.0	-	2009	0.0	2005	-
SC-S4	SE26	160	310.0	-	2009	0.2	2005	-
SC-S4	SE27	130	190.0	-	1686	0.1	1682	-
SC-S4	SE28	150	68.0	-	1903	0.0	1899	-
SC-S4	SE34	260	14.0	-	3030	0.0	3024	-
SC-S4	SE35	98	6.5	-	1327	0.0	1325	-
SC-S4	SE36	140	10.0	-	1795	0.0	1791	-
SC-S4	SE37	150	26.0	-	1903	0.0	1899	-
SC-S4	SE38	280	33.0	-	3226	0.0	3220	-

	TOTAL	DISSOLVED
Total Exceedances:	**0**	**0**
Percent Exceedance:	**0%**	**0%**
Average Exceedance Factor:	**0.05**	**0.00**

a EMC = Event Mean Concentration = Flow Composite Sample
b DL = Detection Limit
c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), for total metals, from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
0.998*exp(A*ln(TH)+B), for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995
d Sample < DL, Exceedance Factor is conservative estimate

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR SELENIUM WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Selenium Total EMC (a) DL = 0.025, 0.2, 0.3 (b) [µg/l]		Selenium Dissolved (e) EMC DL = 0.025, 0.2, 0.3 [µg/l]		ACUTE Exceedance Factor (c) TOTAL OBJ= 20 µg/l
SC-S1	SE02	110	< 0.3	d	-		0.0
SC-S1	SE03	240	< 0.2	d	-		0.0
SC-S1	SE05	60	< 0.2	d	-		0.0
SC-S1	SE06	76	1.0		1.0		0.1
SC-S1	SE07	48	< 0.2	d	< 0.2	d	0.0
SC-S1	SE08	34	< 0.2	d	-		0.0
SC-S1	SE10	76	< 0.2	d	-		0.0
SC-S1	SE11	35	< 0.2	d	-		0.0
SC-S1	SE13	71	< 0.2	d	-		0.0
SC-S1	SE14	62	< 0.2	d	-		0.0
SC-S1	SE15	94	0.3		-		0.0
SC-S1	SE17	73	0.4		-		0.0
SC-S1	SE18	130	< 0.2	d	-		0.0
SC-S1	SE19	63	0.2		-		0.0
SC-S1	SE20	110	0.3		-		0.0
SC-S1	SE23	130	< 0.2	d	-		0.0
SC-S1	SE23	130	0.4		-		0.0
SC-S1	SE26	76	0.2		-		0.0
SC-S1	SE27	130	0.4		-		0.0
SC-S1	SE28	77	0.2		-		0.0
SC-S2	SE02	330	< 0.3	d	-		0.0
SC-S2	SE03	120	< 0.2	d	-		0.0
SC-S2	SE05	76	< 0.2	d	-		0.0
SC-S2	SE06	88	< 0.2	d	< 0.2	d	0.0
SC-S2	SE07	77	< 0.2	d	< 0.2	d	0.0
SC-S2	SE08	21	< 0.2	d	-		0.0
SC-S2	SE10	65	< 0.2	d	-		0.0
SC-S2	SE11	48	< 0.2	d	-		0.0
SC-S2	SE14	53	< 0.2	d	-		0.0
SC-S2	SE15	54	< 0.2	d	-		0.0
SC-S2	SE16	290	< 0.2	d	-		0.0
SC-S2	SE18	140	0.2		-		0.0
SC-S2	SE19	58	0.2		-		0.0
SC-S2	SE20	100	0.2		-		0.0
SC-S2	SE23	160	0.7		-		0.0
SC-S2	SE23	160	< 0.2	d	-		0.0
SC-S2	SE25	51	0.1		-		0.0
SC-S2	SE26	77	0.4		-		0.0
SC-S2	SE27	75	0.3		-		0.0
SC-S2	SE28	120	0.4		-		0.0
SC-S3	SE02	180	< 0.3	d	-		0.0
SC-S3	SE03	108	< 0.2	d	-		0.0
SC-S3	SE05	95	< 0.2	d	-		0.0
SC-S3	SE06	180	0.6		0.6		0.0
SC-S3	SE08	73	0.2		-		0.0
SC-S3	SE10	170	< 0.2	d	-		0.0
SC-S3	SE11	94	0.3		-		0.0
SC-S3	SE12	150	< 0.2	d	-		0.0
SC-S3	SE13	240	0.4		-		0.0
SC-S3	SE14	71	< 0.2	d	-		0.0
SC-S3	SE15	64	< 0.2	d	-		0.0
SC-S3	SE18	160	0.3		-		0.0
SC-S3	SE19	110	0.3		-		0.0
SC-S3	SE20	76	0.4		-		0.0
SC-S3	SE23	120	0.8		-		0.0
SC-S3	SE23	120	< 0.2	d	-		0.0
SC-S3	SE25	110	0.1		-		0.0
SC-S3	SE26	150	0.2		-		0.0
SC-S3	SE27	130	0.4		-		0.0
SC-S3	SE28	140	0.5		-		0.0
SC-S3	SE34	130	0.5		-		0.0
SC-S3	SE35	78	0.03		-		0.0
SC-S3	SE36	110	< 0.025	d	-		0.0
SC-S3	SE37	140	0.5		-		0.0
SC-S3	SE39	220	0.8		-		0.0

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR SELENIUM WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Selenium Total EMC (a) DL = 0.025, 0.2, 0.3 (b) [µg/l]		Selenium Dissolved (e) EMC DL = 0.025, 0.2, 0.3 [µg/l]		ACUTE
							Exceedance Factor (c) TOTAL OBJ= 20 µg/l
SC-S4	SE02	190	<0.3	d	-		0.0
SC-S4	SE05	140	<0.2	d	-		0.0
SC-S4	SE06	140	1.0		1.0		0.1
SC-S4	SE07	200	<0.2	d	<0.2	d	0.0
SC-S4	SE08	86	0.3		-		0.0
SC-S4	SE09	105	0.4		-		0.0
SC-S4	SE10	170	0.3		-		0.0
SC-S4	SE11	79	<0.2	d	-		0.0
SC-S4	SE14	112	<0.2	d	-		0.0
SC-S4	SE15	64	<0.2	d	-		0.0
SC-S4	SE16	130	0.3		-		0.0
SC-S4	SE18	160	0.4		-		0.0
SC-S4	SE19	140	0.8		-		0.0
SC-S4	SE20	92	0.4		-		0.0
SC-S4	SE21	390	0.8		-		0.0
SC-S4	SE22	370	1.3		-		0.1
SC-S4	SE23	130	<0.2	d	-		0.0
SC-S4	SE23	130	0.5		-		0.0
SC-S4	SE24	82	0.6		-		0.0
SC-S4	SE25	160	0.2		-		0.0
SC-S4	SE26	160	0.6		-		0.0
SC-S4	SE27	130	0.5		-		0.0
SC-S4	SE28	150	0.6		-		0.0
SC-S4	SE34	260	0.5		-		0.0
SC-S4	SE35	98	0.0		-		0.0
SC-S4	SE36	140	0.1		-		0.0
SC-S4	SE37	150	0.4		-		0.0
SC-S4	SE38	280	0.8		-		0.0

Total Exceedances:	**0**
Percent Exceedance:	**0%**
Average Exceedance Factor:	**0.02**

a	EMC = Event Mean Concentration = Flow Composite Sample
b	DL = Detection Limit
c	Exceedance Factor = EMC/Water Quality Objective Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as: exp(A*ln(TH)+B), for total metals, from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
d	Sample < DL, Exceedance Factor is conservative estimate
e	There are no objectives for dissolved selenium in EPA Federal Register 40 CFR Part 131 May 4, 1995

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR ZINC WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Zinc Total EMC (a) DL = 1.0 (b) [µg/l]	Zinc Dissolved EMC DL = 1.0 [µg/l]	ACUTE			
					Total Objective A = 0.8473 B = 0.8604 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 0.8473 B = 0.8604 [µg/l]	Exceedance Factor (c) DISSOLVED
SC-S1	SE02	110	350.0	-	126.9	2.8	124.1	-
SC-S1	SE03	240	50.0	-	245.7	0.2	240.3	-
SC-S1	SE05	60	120.0	-	75.9	1.6	74.2	-
SC-S1	SE06	76	230.0	100.0	92.7	2.5	90.7	1.1
SC-S1	SE07	48	305.0	40.0	62.8	4.9	61.4	0.7
SC-S1	SE08	34	98.0	-	46.9	2.1	45.9	-
SC-S1	SE10	76	110.0	-	92.7	1.2	90.7	-
SC-S1	SE11	35	130.0	27.0	48.1	2.7	47.0	0.6
SC-S1	SE13	71	120.0	48.0	87.5	1.4	85.6	0.6
SC-S1	SE14	62	280.0	8.0	78.0	3.6	76.3	0.1
SC-S1	SE15	94	235.0	6.0	111.0	2.1	108.6	0.1
SC-S1	SE17	73	120.0	5.5	89.6	1.3	87.7	0.1
SC-S1	SE18	130	460.0	28.0	146.2	3.1	142.9	0.2
SC-S1	SE19	63	170.0	26.0	79.1	2.1	77.4	0.3
SC-S1	SE20	110	250.0	17.0	126.9	2.0	124.1	0.1
SC-S1	SE23	130	370.0	100.0	146.2	2.5	142.9	0.7
SC-S1	SE26	76	88.0	3.9	92.7	0.9	90.7	0.0
SC-S1	SE27	130	230.0	3.4	146.2	1.6	142.9	0.0
SC-S1	SE28	77	370.0	18.0	93.8	3.9	91.7	0.2
SC-S2	SE02	330	820.0	-	321.8	2.5	314.7	-
SC-S2	SE03	120	140.0	-	136.6	1.0	133.6	-
SC-S2	SE05	76	350.0	-	92.7	3.8	90.7	-
SC-S2	SE06	88	250.0	100.0	105.0	2.4	102.7	1.0
SC-S2	SE07	77	270.0	40.0	93.8	2.9	91.7	0.4
SC-S2	SE08	21	100.0	-	36.2	2.8	35.4	-
SC-S2	SE10	65	90.0	-	81.2	1.1	79.4	-
SC-S2	SE11	48	140.0	35.0	62.8	2.2	61.4	0.6
SC-S2	SE14	53	180.0	14.0	68.3	2.6	66.8	0.2
SC-S2	SE15	54	130.0	6.0	69.4	1.9	67.9	0.1
SC-S2	SE16	290	230.0	7.0	288.4	0.8	282.1	0.0
SC-S2	SE18	140	410.0	27.0	155.6	2.6	152.2	0.2
SC-S2	SE19	58	150.0	32.0	73.8	2.0	72.1	0.4
SC-S2	SE20	100	280.0	9.0	117.0	2.4	114.4	0.1
SC-S2	SE23	160	470.0	20.0	174.3	2.7	170.4	0.1
SC-S2	SE25	51	130.0	21.0	66.1	2.0	64.7	0.3
SC-S2	SE26	77	130.0	26.0	93.8	1.4	91.7	0.3
SC-S2	SE27	75	240.0	3.8	91.7	2.6	89.7	0.0
SC-S2	SE28	120	250.0	32	136.6	1.8	133.6	0.2
SC-S3	SE02	180	425.0	-	192.6	2.2	188.3	-
SC-S3	SE03	108	205.0	-	124.9	1.6	122.2	-
SC-S3	SE05	95	265.0	-	112.0	2.4	109.6	-
SC-S3	SE06	180	169.5	53.5	192.6	0.9	188.3	0.3
SC-S3	SE08	73	160.0	-	89.6	1.8	87.7	-
SC-S3	SE10	170	100.0	-	183.5	0.5	179.4	-
SC-S3	SE11	94	160.0	18.0	111.0	1.4	108.6	0.2
SC-S3	SE12	150	43.0	38.0	165.0	0.3	161.4	0.2
SC-S3	SE13	240	63.5	23.5	245.7	0.3	240.3	0.1
SC-S3	SE14	71	180.0	3.0	87.5	2.1	85.6	0.0
SC-S3	SE15	64	130.0	5.0	80.2	1.6	78.4	0.1
SC-S3	SE18	160	460.0	21.0	174.3	2.6	170.4	0.1
SC-S3	SE19	110	170.0	8.0	126.9	1.3	124.1	0.1
SC-S3	SE20	76	150.0	9.0	92.7	1.6	90.7	0.1
SC-S3	SE23	120	210.0	14.0	136.6	1.5	133.6	0.1
SC-S3	SE25	110	70.0	5.0	126.9	0.6	124.1	0.0
SC-S3	SE26	150	45.0	7.0	165.0	0.3	161.4	0.0
SC-S3	SE27	130	65.0	6.5	146.2	0.4	142.9	0.0
SC-S3	SE28	140	120.0	20.0	155.6	0.8	152.2	0.1
SC-S3	SE34	130	68.0	18.0	146.2	0.5	142.9	0.1
SC-S3	SE35	78	20.0	8.1	94.8	0.2	92.7	0.1
SC-S3	SE36	110	86.0	22.0	126.9	0.7	124.1	0.2
SC-S3	SE37	140	29.0	3.9	155.6	0.2	152.2	0.0
SC-S3	SE39	220	28.0	16.0	228.2	0.1	223.2	0.1

COMPARISON OF USEPA AND SFRWQCB BASIN PLAN WATER QUALITY OBJECTIVES FOR ZINC WITH STORMWATER RUNOFF

Station ID/ Storm Event		Total Hardness as CaCO3 [mg/l]	Zinc Total EMC (a) DL = 1.0 (b) [µg/l]	Zinc Dissolved EMC DL = 1.0 [µg/l]	ACUTE			
					Total Objective A = 0.8473 B = 0.8604 [µg/l]	Exceedance Factor (c) TOTAL	Dissolved Objective A = 0.8473 B = 0.8604 [µg/l]	Exceedance Factor (c) DISSOLVED
SC-S4	SE02	190	430.0	-	201.6	2.1	197.1	-
SC-S4	SE05	140	180.0	-	155.6	1.2	152.2	-
SC-S4	SE06	140	36.0	<1 d	155.6	0.2	152.2	0.0
SC-S4	SE07	200	420.0	16.0	210.5	2.0	205.9	0.1
SC-S4	SE08	86	130.0	-	103.0	1.3	100.7	-
SC-S4	SE09	105	120.0	-	122.0	1.0	119.3	-
SC-S4	SE10	170	110.0	-	183.5	0.6	179.4	-
SC-S4	SE11	79	130.0	24.0	95.8	1.4	93.7	0.3
SC-S4	SE14	112	110.0	15.0	128.8	0.9	126.0	0.1
SC-S4	SE15	64	92.0	10.0	80.2	1.1	78.4	0.1
SC-S4	SE16	130	88.0	13.0	146.2	0.6	142.9	0.1
SC-S4	SE18	160	250.0	20.0	174.3	1.4	170.4	0.1
SC-S4	SE19	140	130.0	16.0	155.6	0.8	152.2	0.1
SC-S4	SE20	92	130.0	10.0	109.0	1.2	106.6	0.1
SC-S4	SE21	390	42.0	10.0	370.7	0.1	362.6	0.0
SC-S4	SE22	370	57.0	14.0	354.6	0.2	346.8	0.0
SC-S4	SE23	130	220.0	25.0	146.2	1.5	142.9	0.2
SC-S4	SE24	82	150.0	5.0	98.9	1.5	96.7	0.1
SC-S4	SE25	160	89.0	17.0	174.3	0.5	170.4	0.1
SC-S4	SE26	160	100.0	10.0	174.3	0.6	170.4	0.1
SC-S4	SE27	130	140.0	3.5	146.2	1.0	142.9	0.0
SC-S4	SE28	150	79.0	24.0	165.0	0.5	161.4	0.1
SC-S4	SE34	260	110.0	28.0	263.0	0.4	257.2	0.1
SC-S4	SE35	98	19.0	11.0	115.0	0.2	112.5	0.1
SC-S4	SE36	140	81.0	8.3	155.6	0.5	152.2	0.1
SC-S4	SE37	150	64.0	4.5	165.0	0.4	161.4	0.0
SC-S4	SE38	280	150.0	4.6	280.0	0.5	273.8	0.0

Total Exceedances:	**56**	**1**
Percent Exceedance:	**62%**	**1%**
Average Exceedance Factor:	**1.50**	**0.18**

a EMC = Event Mean Concentration = Flow Composite Sample

b DL = Detection Limit

c Exceedance Factor = EMC/Water Quality Objective
Water Quality Objectives for the protection of aquatic life are based on total hardness (TH) and are calculated as:
exp(A*ln(TH)+B), for total metals, from San Francisco Bay Region (2), Water Quality Control Plan, December 1986
0.978*exp(A*ln(TH)+B), for dissolved metals, from EPA Federal Register 40 CFR Part 131 May 4, 1995

d Sample < DL, Exceedance Factor is conservative estimate

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR CADMIUM WITH FRESH WATER SEDIMENT SAMPLES

DRY SEASON DATA

Station ID	Cadmium Total (mg/kg)	Objective (5 mg/kg)	Exceedance Factor
ALAMITOS CREEK	<1	5	0.2
CALABAZAS CREEK	<0.3	5	0.1
CALABAZAS CREEK	<0.1	5	0.0
CALABAZAS CREEK	<0.1	5	0.0
COYOTE CREEK, NORTH	1	5	0.2
COYOTE CREEK, NORTH	<1	5	0.2
COYOTE CREEK, NORTH	<1	5	0.2
COYOTE CREEK, SOUTH	2	5	0.4
COYOTE CREEK, SOUTH	<1	5	0.2
COYOTE CREEK, SOUTH	<1	5	0.2
COYOTE CREEK, SOUTH	<1	5	0.2
COYOTE CREEK, SOUTH	<1	5	0.2
COYOTE CREEK, SOUTH	<1	5	0.2
GUADALUPE CREEK	<1	5	0.2
GUADALUPE CREEK	<1	5	0.2
GUADALUPE RIVER, NORTH	<1	5	0.2
GUADALUPE RIVER, NORTH	<1	5	0.2
GUADALUPE RIVER, NORTH	<1	5	0.2
GUADALUPE RIVER, NORTH	<1	5	0.2
GUADALUPE RIVER, SOUTH	<1	5	0.2
LOS GATOS CREEK, MIDDLE	2	5	0.4
LOS GATOS CREEK, MIDDLE	<1	5	0.2
LOS GATOS CREEK, MIDDLE	<1	5	0.2
LOS GATOS CREEK, MIDDLE	<1	5	0.2
LOS GATOS CREEK, MIDDLE	<1	5	0.2
LOS GATOS CREEK, NORTH	<1	5	0.2
LOS GATOS CREEK, NORTH	<1	5	0.2
LOS GATOS CREEK, SOUTH	<1	5	0.2
LOS GATOS CREEK, SOUTH	1	5	0.2
S1	0.1	5	0.0
S2	2	5	0.4
S3	0.1	5	0.0
S4	1	5	0.2

Total Exceedances	**0**
Percent Exceedance	**0.00%**
Average Exceedance Factor	**0.19**

WET SEASON DATA

Station ID	Cadmium Total (mg/kg)	Objective (5 mg/kg)	Exceedance Factor
ALAMITOS CREEK	<1	5	0.2
COYOTE CREEK, NORTH	1	5	0.2
COYOTE CREEK, NORTH	<1	5	0.2
COYOTE CREEK, SOUTH	<1	5	0.2
GUADALUPE CREEK	1	5	0.2
GUADALUPE CREEK	<1	5	0.2
GUADALUPE CREEK	<1	5	0.2
GUADALUPE RIVER, NORTH	2	5	0.4
GUADALUPE RIVER, NORTH	1	5	0.2
GUADALUPE RIVER, NORTH	1	5	0.2
GUADALUPE RIVER, NORTH	<1	5	0.2
GUADALUPE RIVER, SOUTH	<1	5	0.2
GUADALUPE RIVER, SOUTH	<1	5	0.2
LOS GATOS CREEK, MIDDLE	<1	5	0.2
LOS GATOS CREEK, MIDDLE	<1	5	0.2
LOS GATOS CREEK, NORTH	1	5	0.2
LOS GATOS CREEK, NORTH	1	5	0.2
LOS GATOS CREEK, NORTH	<1	5	0.2
LOS GATOS CREEK, SOUTH	1	5	0.2
LOS GATOS CREEK, SOUTH	<1	5	0.2
LOS GATOS CREEK, SOUTH	<1	5	0.2
S1	0.1	5	0.0
S2	0.5	5	0.1
S3	1.4	5	0.3
S4	0.35	5	0.1

Total Exceedances	**0**
Percent Exceedance	**0.00%**
Average Exceedance Factor	**0.19**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR CHROMIUM WITH FRESH WATER SEDIMENT SAMPLES

DRY SEASON DATA

Station ID	Chromium Total (mg/kg)	Objective (220 mg/kg)	Exceedance Factor
ALAMITOS CREEK	1700	220	7.7
CALABAZAS CREEK	83	220	0.4
CALABAZAS CREEK	66	220	0.3
CALABAZAS CREEK	79	220	0.4
COYOTE CREEK, NORTH	58	220	0.3
COYOTE CREEK, NORTH	100	220	0.5
COYOTE CREEK, NORTH	20	220	0.1
COYOTE CREEK, SOUTH	13	220	0.1
COYOTE CREEK, SOUTH	60	220	0.3
COYOTE CREEK, SOUTH	20	220	0.1
COYOTE CREEK, SOUTH	20	220	0.1
COYOTE CREEK, SOUTH	70	220	0.3
COYOTE CREEK, SOUTH	950	220	4.3
GUADALUPE CREEK	80	220	0.4
GUADALUPE CREEK	1100	220	5.0
GUADALUPE RIVER, NORTH	50	220	0.2
GUADALUPE RIVER, NORTH	43	220	0.2
GUADALUPE RIVER, NORTH	10	220	0.0
GUADALUPE RIVER, NORTH	20	220	0.1
GUADALUPE RIVER, NORTH	80	220	0.4
GUADALUPE RIVER, NORTH	740	220	3.4
GUADALUPE RIVER, SOUTH	80	220	0.4
GUADALUPE RIVER, SOUTH	1100	220	5.0
LOS GATOS CREEK, MIDDLE	21	220	0.1
LOS GATOS CREEK, MIDDLE	30	220	0.1
LOS GATOS CREEK, MIDDLE	20	220	0.1
LOS GATOS CREEK, MIDDLE	9	220	0.0
LOS GATOS CREEK, MIDDLE	40	220	0.2
LOS GATOS CREEK, MIDDLE	680	220	3.1
LOS GATOS CREEK, NORTH	6	220	0.0
LOS GATOS CREEK, NORTH	10	220	0.0
LOS GATOS CREEK, SOUTH	50	220	0.2
LOS GATOS CREEK, SOUTH	380	220	1.7
S1	78	220	0.4
S2	84	220	0.4
S3	80	220	0.4
S4	99	220	0.4

Total Exceedances	**7**
Percent Exceedance	**18.92%**
Average Exceedance Factor	**1.00**

WET SEASON DATA

Station ID	Chromium Total (mg/kg)	Objective (220 mg/kg)	Exceedance Factor
ALAMITOS CREEK	150	220	0.7
COYOTE CREEK, NORTH	10	220	0.0
COYOTE CREEK, NORTH	58	220	0.3
COYOTE CREEK, NORTH	50	220	0.2
COYOTE CREEK, NORTH	160	220	0.7
COYOTE CREEK, SOUTH	30	220	0.1
COYOTE CREEK, SOUTH	34	220	0.2
COYOTE CREEK, SOUTH	20	220	0.1
COYOTE CREEK, SOUTH	30	220	0.1
COYOTE CREEK, SOUTH	130	220	0.6
GUADALUPE CREEK	40	220	0.2
GUADALUPE CREEK	30	220	0.1
GUADALUPE CREEK	150	220	0.7
GUADALUPE RIVER, NORTH	50	220	0.2
GUADALUPE RIVER, NORTH	21	220	0.1
GUADALUPE RIVER, NORTH	60	220	0.3
GUADALUPE RIVER, NORTH	30	220	0.1
GUADALUPE RIVER, NORTH	90	220	0.4
GUADALUPE RIVER, SOUTH	40	220	0.2
GUADALUPE RIVER, SOUTH	100	220	0.5
LOS GATOS CREEK, MIDDLE	20	220	0.1
LOS GATOS CREEK, MIDDLE	14	220	0.1
LOS GATOS CREEK, MIDDLE	30	220	0.1
LOS GATOS CREEK, MIDDLE	20	220	0.1
LOS GATOS CREEK, MIDDLE	160	220	0.7
LOS GATOS CREEK, NORTH	20	220	0.1
LOS GATOS CREEK, NORTH	30	220	0.1
LOS GATOS CREEK, NORTH	20	220	0.1
LOS GATOS CREEK, SOUT	20	220	0.1
LOS GATOS CREEK, SOUT	70	220	0.3
S1	77	220	0.4
S2	78	220	0.4
S3	170	220	0.8
S4	82	220	0.4

Total Exceedances	**0**
Percent Exceedance	**0.00%**
Average Exceedance Factor	**0.28**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR COPPER WITH FRESH WATER SEDIMENT SAMPLES

DRY SEASON DATA

Station ID	Copper Total (mg/kg)	Objective (90 mg/kg)	Exceedance Factor
ALAMITOS CREEK	90	90	1.0
CALABAZAS CREEK	46	90	0.5
CALABAZAS CREEK	26.5	90	0.3
CALABAZAS CREEK	31.4	90	0.3
COYOTE CREEK, NORTH	20	90	0.2
COYOTE CREEK, NORTH	10	90	0.1
COYOTE CREEK, NORTH	7	90	0.1
COYOTE CREEK, SOUTH	20	90	0.2
COYOTE CREEK, SOUTH	20	90	0.2
COYOTE CREEK, SOUTH	10	90	0.1
COYOTE CREEK, SOUTH	20	90	0.2
COYOTE CREEK, SOUTH	30	90	0.3
COYOTE CREEK, SOUTH	70	90	0.8
GUADALUPE CREEK	30	90	0.3
GUADALUPE CREEK	40	90	0.4
GUADALUPE RIVER, NORTH	100	90	1.1
GUADALUPE RIVER, NORTH	20	90	0.2
GUADALUPE RIVER, NORTH	10	90	0.1
GUADALUPE RIVER, NORTH	10	90	0.1
GUADALUPE RIVER, NORTH	60	90	0.7
GUADALUPE RIVER, NORTH	100	90	1.1
GUADALUPE RIVER, SOUTH	30	90	0.3
GUADALUPE RIVER, SOUTH	70	90	0.8
LOS GATOS CREEK, MIDDLE	20	90	0.2
LOS GATOS CREEK, MIDDLE	20	90	0.2
LOS GATOS CREEK, MIDDLE	20	90	0.2
LOS GATOS CREEK, MIDDLE	20	90	0.2
LOS GATOS CREEK, MIDDLE	30	90	0.3
LOS GATOS CREEK, MIDDLE	50	90	0.6
LOS GATOS CREEK, NORTH	9	90	0.1
LOS GATOS CREEK, NORTH	10	90	0.1
LOS GATOS CREEK, SOUTH	30	90	0.3
LOS GATOS CREEK, SOUTH	70	90	0.8
S1	25	90	0.3
S1	27	90	0.3
S2	46	90	0.5
S2	40	90	0.4
S3	37	90	0.4
S3	96	90	1.1
S4	70	90	0.8
S4	65	90	0.7
Total Exceedances			4
Percent Exceedance			9.76%
Average Exceedance Factor			0.42

WET SEASON DATA

Station ID	Copper Total (mg/kg)	Objective (90 mg/kg)	Exceedance Factor
ALAMITOS CREEK	20	90	0.2
COYOTE CREEK, NORTH	4	90	0.0
COYOTE CREEK, NORTH	8	90	0.1
COYOTE CREEK, NORTH	10	90	0.1
COYOTE CREEK, NORTH	20	90	0.2
COYOTE CREEK, SOUTH	20	90	0.2
COYOTE CREEK, SOUTH	20	90	0.2
COYOTE CREEK, SOUTH	20	90	0.2
COYOTE CREEK, SOUTH	260	90	2.9
COYOTE CREEK, SOUTH	50	90	0.6
GUADALUPE CREEK	20	90	0.2
GUADALUPE CREEK	10	90	0.1
GUADALUPE CREEK	40	90	0.4
GUADALUPE RIVER, NORTH	40	90	0.4
GUADALUPE RIVER, NORTH	20	90	0.2
GUADALUPE RIVER, NORTH	30	90	0.3
GUADALUPE RIVER, NORTH	20	90	0.2
GUADALUPE RIVER, NORTH	180	90	2.0
GUADALUPE RIVER, SOUTH	20	90	0.2
GUADALUPE RIVER, SOUTH	60	90	0.7
LOS GATOS CREEK, MIDDLE	20	90	0.2
LOS GATOS CREEK, MIDDLE	8	90	0.1
LOS GATOS CREEK, MIDDLE	20	90	0.2
LOS GATOS CREEK, MIDDLE	30	90	0.3
LOS GATOS CREEK, NORTH	30	90	0.3
LOS GATOS CREEK, NORTH	20	90	0.2
LOS GATOS CREEK, NORTH	10	90	0.1
LOS GATOS CREEK, SOUT 10		90	0.1
LOS GATOS CREEK, SOUT 30		90	0.3
S1	23	90	0.3
S1	63	90	0.7
S2	76	90	0.8
S2	32	90	0.4
S3	100	90	1.1
S3	44.3	90	0.5
S4	34	90	0.4
S4	29	90	0.3
Total Exceedances			3
Percent Exceedance			8.11%
Average Exceedance Factor			0.44

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR LEAD WITH FRESH WATER SEDIMENT SAMPLES

DRY SEASON DATA

Station ID	Lead Total (mg/kg)	Objective (50 mg/kg)	Exceedance Factor
ALAMITOS CREEK	10	50	0.2
CALABAZAS CREEK	38.4	50	0.8
CALABAZAS CREEK	11.9	50	0.2
CALABAZAS CREEK	9.8	50	0.2
COYOTE CREEK, NORTH	150	50	3.0
COYOTE CREEK, NORTH	50	50	1.0
COYOTE CREEK, NORTH	20	50	0.4
COYOTE CREEK, SOUTH	10	50	0.2
COYOTE CREEK, SOUTH	10	50	0.2
COYOTE CREEK, SOUTH	<10	50	0.2
COYOTE CREEK, SOUTH	20	50	0.4
COYOTE CREEK, SOUTH	10	50	0.2
COYOTE CREEK, SOUTH	<10	50	0.2
GUADALUPE CREEK	20	50	0.4
GUADALUPE CREEK	<10	50	0.2
GUADALUPE RIVER, NORTH	110	50	2.2
GUADALUPE RIVER, NORTH	40	50	0.8
GUADALUPE RIVER, NORTH	60	50	1.2
GUADALUPE RIVER, NORTH	40	50	0.8
GUADALUPE RIVER, NORTH	50	50	1.0
GUADALUPE RIVER, NORTH	300	50	6.0
GUADALUPE RIVER, SOUTH	10	50	0.2
GUADALUPE RIVER, SOUTH	<10	50	0.2
LOS GATOS CREEK, MIDDLE	40	50	0.8
LOS GATOS CREEK, MIDDLE	10	50	0.2
LOS GATOS CREEK, MIDDLE	20	50	0.4
LOS GATOS CREEK, MIDDLE	<10	50	0.2
LOS GATOS CREEK, MIDDLE	20	50	0.4
LOS GATOS CREEK, MIDDLE	60	50	1.2
LOS GATOS CREEK, NORTH	20	50	0.4
LOS GATOS CREEK, NORTH	20	50	0.4
LOS GATOS CREEK, SOUTH	50	50	1.0
LOS GATOS CREEK, SOUTH	30	50	0.6
S1	44	50	0.9
S1	16	50	0.3
S2	98	50	2.0
S2	40	50	0.8
S3	25	50	0.5
S3	155	50	3.1
S4	93.5	50	1.9
S4	77	50	1.5

Total Exceedances	**12**
Percent Exceedance	**29.27%**
Average Exceedance Factor	**0.90**

WET SEASON DATA

Station ID	Lead Total (mg/kg)	Objective (50 mg/kg)	Exceedance Factor
ALAMITOS CREEK	50	50	1.0
COYOTE CREEK, NORTH	5	50	0.1
COYOTE CREEK, NORTH	80	50	1.6
COYOTE CREEK, NORTH	50	50	1.0
COYOTE CREEK, NORTH	210	50	4.2
COYOTE CREEK, SOUTH	40	50	0.8
COYOTE CREEK, SOUTH	10	50	0.2
COYOTE CREEK, SOUTH	10	50	0.2
COYOTE CREEK, SOUTH	70	50	1.4
GUADALUPE CREEK	10	50	0.2
GUADALUPE CREEK	50	50	1.0
GUADALUPE RIVER, NORTH	1000	50	20.0
GUADALUPE RIVER, NORTH	20	50	0.4
GUADALUPE RIVER, NORTH	60	50	1.2
GUADALUPE RIVER, NORTH	80	50	1.6
GUADALUPE RIVER, NORTH	80	50	1.6
GUADALUPE RIVER, SOUTH	<10	50	0.2
GUADALUPE RIVER, SOUTH	110	50	2.2
LOS GATOS CREEK, MIDDLE	90	50	1.8
LOS GATOS CREEK, MIDDLE	40	50	0.8
LOS GATOS CREEK, MIDDLE	30	50	0.6
LOS GATOS CREEK, MIDDLE	20	50	0.4
LOS GATOS CREEK, MIDDLE	40	50	0.8
LOS GATOS CREEK, NORTH	150	50	3.0
LOS GATOS CREEK, NORTH	60	50	1.2
LOS GATOS CREEK, NORTH	50	50	1.0
LOS GATOS CREEK, SOUTH	30	50	0.6
LOS GATOS CREEK, SOUT 50		50	1.0
S1 9		50	0.2
S1	45	50	0.9
S2	93	50	1.9
S2	32	50	0.6
S3	150	50	3.0
S3	68.3	50	1.4
S4	28	50	0.6
S4	33	50	0.7

Total Exceedances	**19**
Percent Exceedance	**52.78%**
Average Exceedance Factor	**1.65**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR MERCURY WITH FRESH WATER SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Mercury Total (mg/kg)	Objective (0.35 mg/kg)	Exceedance Factor
ALAMITOS CREEK	57.0	0.35	162.9
ALAMITOS CREEK	2.6	0.35	7.4
ALAMITOS CREEK	95.0	0.35	271.4
ALAMITOS CREEK	44.0	0.35	125.7
ALAMITOS CREEK @ BERTRAM	22.65	0.35	64.7
ALAMITOS CREEK @ HICKS	24.70	0.35	70.6
ALMADEN-CALERO CANAL	0.22	0.35	0.6
ANDERSON RESERVOIR	0.15	0.35	0.4
ANDERSON RESERVOIR	0.05	0.35	0.1
CALABAZAS CREEK	0.32	0.35	0.9
CALABAZAS CREEK	<0.1	0.35	0.3
CALABAZAS CREEK	<0.1	0.35	0.3
CALABAZAS CREEK, WILCOX SCHL.	0.05	0.35	0.1
CALABAZAS CREEK, WILCOX SCHL.	<0.02	0.35	0.1
CALERO	2.1	0.35	6.0
CALERO @ CTR	0.3	0.35	0.9
CALERO @ CTR	0.04	0.35	0.1
CALERO @ CTR	0.68	0.35	1.9
CALERO @ CTR	0.5	0.35	1.4
CALERO @ CTR	0.59	0.35	1.7
CALERO @ DAM	0.51	0.35	1.5
CALERO @ DAM	0.06	0.35	0.2
CALERO @ DAM	0.48	0.35	1.4
CALERO @ DAM	0.37	0.35	1.1
CALERO @ DAM	1.2	0.35	3.4
CALERO @ DAM	0.8	0.35	2.3
CALERO @ U/S END	0.12	0.35	0.3
CALERO @ U/S END	0.5	0.35	1.4
CALERO @ U/S END	0.43	0.35	1.2
COYOTE CREEK	5.8	0.35	16.6
COYOTE CREEK	0.23	0.35	0.7
COYOTE CREEK @ COYOTE	0.14	0.35	0.4
COYOTE CREEK @ COYOTE	0.05	0.35	0.1
COYOTE CREEK @ COYOTE	0.05	0.35	0.1
COYOTE CREEK @ MONTAGUE	0.49	0.35	1.4
COYOTE CREEK @ MONTAGUE	0.17	0.35	0.5
COYOTE CREEK, NORTH	0.14	0.35	0.4
COYOTE CREEK, NORTH	0.05	0.35	0.1
COYOTE CREEK, NORTH	0.05	0.35	0.1
COYOTE CREEK, SOUTH	0.04	0.35	0.1
COYOTE CREEK, SOUTH	0.04	0.35	0.1
COYOTE CREEK, SOUTH	0.06	0.35	0.2
COYOTE CREEK, SOUTH	0.06	0.35	0.2
COYOTE CREEK, SOUTH	0.65	0.35	1.9
COYOTE CREEK, SOUTH	0.08	0.35	0.2
COYOTE RESERVOIR	0.25	0.35	0.7
COYOTE RESERVOIR	0.1	0.35	0.3
GUADALUPE CREEK	3.9	0.35	11.1
GUADALUPE CREEK	3.8	0.35	10.9

Station ID	Mercury Total (mg/kg)	Objective (0.35 mg/kg)	Exceedance Factor
GUADALUPE CREEK @ HICKS	0.07	0.35	0.2
GUADALUPE CREEK @ HICKS	1.2	0.35	3.4
GUADALUPE CREEK @ HICKS	2.5	0.35	7.1
GUADALUPE CREEK @ HICKS	1.1	0.35	3.1
GUADALUPE CREEK @ HICKS	3.9	0.35	11.1
GUADALUPE CREEK @ HICKS	0.67	0.35	1.9
GUADALUPE CREEK @ HICKS	3.9	0.35	11.1
GUADALUPE CREEK @ HICKS	70	0.35	200.0
GUADALUPE CREEK @ HICKS	10	0.35	28.6
GUADALUPE CREEK @ HICKS	3.8	0.35	10.9
GUADALUPE CREEK ABOVE RES.	25	0.35	71.4
GUADALUPE CREEK BELOW DAM	7.55	0.35	21.6
GUADALUPE RIVER	0.74	0.35	2.1
GUADALUPE RIVER	4.6	0.35	13.1
GUADALUPE RIVER @ ALAMITOS	7.2	0.35	20.6
GUADALUPE RIVER @ ALAMITOS	3.5	0.35	10.0
GUADALUPE RIVER @ ALAMITOS	12	0.35	34.3
GUADALUPE RIVER @ ALAMITOS	0.05	0.35	0.1
GUADALUPE RIVER @ ALAMITOS	1.0	0.35	2.9
GUADALUPE RIVER @ ALAMITOS	2.1	0.35	6.0
GUADALUPE RIVER @ ALAMITOS	4	0.35	11.4
GUADALUPE RIVER @ ALAMITOS	25	0.35	71.4
GUADALUPE RIVER @ ALAMITOS	8.5	0.35	24.3
GUADALUPE RIVER @ ALAMITOS	15	0.35	42.9
GUADALUPE RIVER @ ST. JOHN'S	10	0.35	28.6
GUADALUPE RIVER @ ST. JOHN'S	0.36	0.35	1.0
GUADALUPE RIVER @ ST. JOHN'S	0.08	0.35	0.2
GUADALUPE RIVER @ ST. JOHN'S	0.03	0.35	0.1
GUADALUPE RIVER @ ST. JOHN'S	0.9	0.35	2.6
GUADALUPE RIVER @ ST. JOHN'S	1.7	0.35	4.9
GUADALUPE RIVER @ ST. JOHN'S	0.1	0.35	0.4
GUADALUPE RIVER @ ST. JOHN'S	1.7	0.35	4.9
GUADALUPE RIVER @ ST. JOHN'S	4.0	0.35	11.4
GUADALUPE RIVER @ ST. JOHN'S	3.8	0.35	10.9
GUADALUPE RIVER, NORTH	5.2	0.35	14.9
GUADALUPE RIVER, NORTH	0.08	0.35	0.2
GUADALUPE RIVER, NORTH	0.03	0.35	0.1
GUADALUPE RIVER, NORTH	0.9	0.35	2.6
GUADALUPE RIVER, NORTH	1.7	0.35	4.9
GUADALUPE RIVER, SOUTH	2.1	0.35	6.0
GUADALUPE RIVER, SOUTH	4	0.35	11.4
LEXINGTON	0.18	0.35	0.5
LEXINGTON RESERVOIR @ DAM	0.2	0.35	0.6
LOS GATOS CREEK, MIDDLE	0.04	0.35	0.1
LOS GATOS CREEK, MIDDLE	0.06	0.35	0.2
LOS GATOS CREEK, MIDDLE	0.05	0.35	0.1
LOS GATOS CREEK, MIDDLE	0.06	0.35	0.2
LOS GATOS CREEK, MIDDLE	1.1	0.35	3.1
LOS GATOS CREEK, MIDDLE	0.2	0.35	0.6
LOS GATOS CREEK, MIDDLE	0.7	0.35	1.9
LOS GATOS CREEK, MIDDLE	0.8	0.35	2.1
LOS GATOS CREEK, MIDDLE	0.1	0.35	0.4
LOS GATOS CREEK, MIDDLE	0.2	0.35	0.5
LOS GATOS CREEK, NORTH	0.03	0.35	0.1
LOS GATOS CREEK, NORTH	0.03	0.35	0.1
LOS GATOS CREEK, NORTH	0.04	0.35	0.1

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR MERCURY WITH FRESH WATER SEDIMENT SAMPLES
DRY SEASON DATA

Station ID	Mercury Total (mg/kg)	Objective (0.35 mg/kg)	Exceedance Factor
LOS GATOS CREEK, SOUTH	0.02	0.35	0.1
LOS GATOS CREEK, SOUTH	0.02	0.35	0.1
LOS GATOS CREEK, SOUTH	0.06	0.35	0.2
LOS GATOS CREEK, SOUTH	0.69	0.35	2.0
LOS GATOS CREEK, SOUTH	0.2	0.35	0.6
STEVENS CREEK	0.20	0.35	0.6
STEVENS CREEK	0.07	0.35	0.2
SUNNYVALE E, CHANNEL	0.14	0.35	0.4
SUNNYVALE E, CHANNEL	<0.02	0.35	0.1
S1	0.05	0.35	0.1
S1	<0.02	0.35	0.1
S2	0.14	0.35	0.4
S2	<0.02	0.35	0.1
S3	0.74	0.35	2.1
S3	4.55	0.35	13.0
S4	0.36	0.35	1.0
S4	0.17	0.35	0.5

Total Exceedances	63
Percent Exceedance	51.64%
Average Exceedance Factor	12.48

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR MERCURY WITH FRESH WATER SEDIMENT SAMPLES
WET SEASON DATA

Station ID	Mercury Total (mg/kg)	Objective (0.35 mg/kg)	Exceedance Factor
ALAMITOS CREEK	1.5	0.35	4.3
ALMADEN RESERVOIR	35.6	0.35	101.7
ALMADEN RESERVOIR @ DAM	6.0	0.35	17.1
ALMADEN RESERVOIR @ JG	16.0	0.35	45.7
ALMADEN RESERVOIR @ U/S END	20.0	0.35	57.1
ALMADEN-CALERO CANAL	0.85	0.35	2.4
ALMADEN-CALERO CANAL	0.3	0.35	0.9
ALMADEN-CALERO CANAL	0.49	0.35	1.4
ALMADEN-CALERO CANAL	0.14	0.35	0.4
CALABAZAS CREEK, B1	0.094	0.35	0.3
CALABAZAS CREEK, B2	0.023	0.35	0.1
CALABAZAS CREEK, B3	0.076	0.35	0.2
CALABAZAS CREEK, B5	0.012	0.35	0.0
CALABAZAS CREEK, B6	0.043	0.35	0.1
CALABAZAS CREEK, WILCOX SCHL.	0.1	0.35	0.3
CALABAZAS CREEK, WILCOX SCHL.	0.38	0.35	1.1
CALERO @ CANAL	0.92	0.35	2.6
CALERO @ CTR	0.7	0.35	2.0
CALERO @ CTR	0.62	0.35	1.8
CALERO @ CTR	0.63	0.35	1.8
CALERO @ DAM	0.59	0.35	1.7
CALERO @ DAM	0.62	0.35	1.8
CALERO @ DAM	0.42	0.35	1.2
CALERO @ DAM	0.44	0.35	1.3
CALERO @ U/S END	0.25	0.35	0.7
CALERO @ U/S END	0.23	0.35	0.7
CALERO @ U/S END	0.42	0.35	1.2
COYOTE CREEK	0.2	0.35	0.6
COYOTE CREEK @ COYOTE	0.08	0.35	0.2
COYOTE CREEK @ COYOTE	1	0.35	2.9
COYOTE CREEK @ COYOTE	0.1	0.35	0.3
COYOTE CREEK @ COYOTE	0.06	0.35	0.2
COYOTE CREEK @ MONTAGUE	0.1	0.35	0.3
COYOTE CREEK @ MONTAGUE	0.45	0.35	1.3
COYOTE CREEK, NORTH	0.08	0.35	0.2
COYOTE CREEK, NORTH	1	0.35	2.9
COYOTE CREEK, NORTH	0.1	0.35	0.3
COYOTE CREEK, NORTH	0.06	0.35	0.2
COYOTE CREEK, SOUTH	0.13	0.35	0.4
COYOTE CREEK, SOUTH	0.6	0.35	1.7
COYOTE CREEK, SOUTH	0.07	0.35	0.2
COYOTE CREEK, SOUTH	0.11	0.35	0.3
COYOTE CREEK, SOUTH	0.07	0.35	0.2
GUADALUPE CREEK	0.08	0.35	0.2
GUADALUPE CREEK	1.4	0.35	4.0
GUADALUPE CREEK	0.6	0.35	1.7
GUADALUPE CREEK @ HICKS	0.08	0.35	0.2
GUADALUPE CREEK @ HICKS	0.04	0.35	0.1
GUADALUPE CREEK @ HICKS	7.2	0.35	20.6
GUADALUPE CREEK @ HICKS	1.4	0.35	4.0
GUADALUPE CREEK @ HICKS	0.6	0.35	1.7
GUADALUPE RESERVOIR @ DAM	2.3	0.35	6.6
GUADALUPE RESERVOIR @ U/S END	2.4	0.35	6.9

Station ID	Mercury Total (mg/kg)	Objective (0.35 mg/kg)	Exceedance Factor
GUADALUPE RIVER	4.1	0.35	11.7
GUADALUPE RIVER	3.0	0.35	8.6
GUADALUPE RIVER @ ALAMITOS	5.8	0.35	16.6
GUADALUPE RIVER @ ALAMITOS	0.06	0.35	0.2
GUADALUPE RIVER @ ALAMITOS	12	0.35	34.3
GUADALUPE RIVER @ ALAMITOS	4.2	0.35	12.0
GUADALUPE RIVER @ ALAMITOS	0.3	0.35	0.9
GUADALUPE RIVER @ ST. JOHN'S	1.7	0.35	4.9
GUADALUPE RIVER @ ST. JOHN'S	0.40	0.35	1.1
GUADALUPE RIVER @ ST. JOHN'S	1.7	0.35	4.9
GUADALUPE RIVER @ ST. JOHN'S	3.5	0.35	10.0
GUADALUPE RIVER @ ST. JOHN'S	0.3	0.35	0.9
GUADALUPE RIVER @ ST. JOHN'S	8.0	0.35	22.9
GUADALUPE RIVER, NORTH	1.7	0.35	4.9
GUADALUPE RIVER, NORTH	0.4	0.35	1.1
GUADALUPE RIVER, NORTH	1.7	0.35	4.9
GUADALUPE RIVER, NORTH	3.5	0.35	10.0
GUADALUPE RIVER, NORTH	0.3	0.35	0.9
GUADALUPE RIVER, SOUTH	4.2	0.35	12.0
GUADALUPE RIVER, SOUTH	0.3	0.35	0.9
LOS GATOS CREEK, MIDDLE	0.03	0.35	0.1
LOS GATOS CREEK, MIDDLE	0.9	0.35	2.6
LOS GATOS CREEK, MIDDLE	0.08	0.35	0.2
LOS GATOS CREEK, MIDDLE	0.05	0.35	0.1
LOS GATOS CREEK, MIDDLE	1.5	0.35	4.3
LOS GATOS CREEK, NORTH	0.03	0.35	0.1
LOS GATOS CREEK, NORTH	0.06	0.35	0.2
LOS GATOS CREEK, NORTH	0.07	0.35	0.2
LOS GATOS CREEK, NORTH	0.06	0.35	0.2
LOS GATOS CREEK, SOUTH	0.04	0.35	0.1
LOS GATOS CREEK, SOUTH	0.05	0.35	0.1
LOS GATOS CREEK, SOUTH	0.05	0.35	0.1
SUNNYVALE E. CHANNEL	0.2	0.35	0.6
SUNNYVALE E. CHANNEL	0.15	0.35	0.4
S1	0.1	0.35	0.3
S1	0.38	0.35	1.1
S2	0.2	0.35	0.6
S2	0.15	0.35	0.4
S3	4.1	0.35	11.7
S3	3	0.35	8.6
S4	0.15	0.35	0.4
S4	0.45	0.35	1.3

Total Exceedances	**49**
Percent Exceedance	**51.58%**
Average Exceedance Factor	**5.31**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR NICKEL WITH FRESH WATER SEDIMENT SAMPLES

DRY SEASON DATA

Station ID	Nickel Total (mg/kg)	Objective (140 mg/kg)	Exceedance Factor
CALABAZAS CREEK	86.6	140	0.6
CALABAZAS CREEK	61	140	0.4
CALABAZAS CREEK	72	140	0.5
S1	69	140	0.5
S1	69	140	0.5
S2	76	140	0.5
S2	76	140	0.5
S3	97	140	0.7
S3	103.5	140	0.7
S4	125	140	0.9
S4	140	140	1.0

Total Exceedances	**1**
Percent Exceedance	**9.09%**
Average Exceedance Factor	**0.6**

WET SEASON DATA

Station ID	Nickel Total (mg/kg)	Objective (140 mg/kg)	Exceedance Factor
S1	49	140	0.4
S2	41	140	0.3
S3	160	140	1.1
S4	83.5	140	0.6

Total Exceedances	**1**
Percent Exceedance	**25.00%**
Average Exceedance Factor	**0.60**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR SELENIUM WITH FRESH WATER SEDIMENT SAMPLES

DRY SEASON DATA

Station ID	Selenium Total (mg/kg)	Objective (0.7 mg/kg)	Exceedance Factor
ALAMITOS CREEK	<1	0.7	NC
CALABAZAS CREEK	<1	0.7	NC
CALABAZAS CREEK	<0.6	0.7	0.9
CALABAZAS CREEK	<0.5	0.7	0.7
COYOTE CREEK, NORTH	<1	0.7	NC
COYOTE CREEK, SOUTH	<1	0.7	NC
COYOTE CREEK, SOUTH	<1	0.7	NC
COYOTE CREEK, SOUTH	<1	0.7	NC
COYOTE CREEK, SOUTH	<1	0.7	NC
GUADALUPE CREEK	<1	0.7	NC
GUADALUPE CREEK	<1	0.7	NC
GUADALUPE RIVER, NORTH	<1	0.7	NC
GUADALUPE RIVER, NORTH	<1	0.7	NC
GUADALUPE RIVER, NORTH	<1	0.7	NC
GUADALUPE RIVER, NORTH	1	0.7	1.4
GUADALUPE RIVER, SOUTH	<1	0.7	NC
GUADALUPE RIVER, SOUTH	<1	0.7	NC
LOS GATOS CREEK, MIDDLE	<1	0.7	NC
LOS GATOS CREEK, MIDDLE	<1	0.7	NC
LOS GATOS CREEK, MIDDLE	<1	0.7	NC
LOS GATOS CREEK, MIDDLE	<1	0.7	NC
LOS GATOS CREEK, NORTH	<1	0.7	NC
LOS GATOS CREEK, NORTH	<1	0.7	NC
LOS GATOS CREEK, SOUTH	<1	0.7	NC
LOS GATOS CREEK, SOUTH	1	0.7	1.4
S1	<0.2	0.7	0.3
S1	0.3	0.7	0.4
S2	0.2	0.7	0.3
S2	1	0.7	1.4
S3	<0.2	0.7	0.3
S3	0.9	0.7	1.3
S4	0.5	0.7	0.7
S4	0.4	0.7	0.6

Total Exceedances	**4**
Percent Exceedance	**33.33%**
Average Exceedance Factor	**0.81**

WET SEASON DATA

Station ID	Selenium Total (mg/kg)	Objective (0.7 mg/kg)	Exceedance Factor
ALAMITOS CREEK	<1	0.7	NC
COYOTE CREEK, NORTH	<1	0.7	NC
COYOTE CREEK, NORTH	<1	0.7	NC
COYOTE CREEK, SOUTH	<1	0.7	NC
COYOTE CREEK, SOUTH	<1	0.7	NC
COYOTE CREEK, SOUTH	<1	0.7	NC
GUADALUPE CREEK	<1	0.7	NC
GUADALUPE CREEK	<1	0.7	NC
GUADALUPE RIVER, NORTH	<1	0.7	NC
GUADALUPE RIVER, NORTH	<1	0.7	NC
GUADALUPE RIVER, NORTH	<1	0.7	NC
GUADALUPE RIVER, SOUTH	<1	0.7	NC
GUADALUPE RIVER, SOUTH	<1	0.7	NC
LOS GATOS CREEK, MIDDLE	<1	0.7	NC
LOS GATOS CREEK, MIDDLE	<1	0.7	NC
LOS GATOS CREEK, MIDDLE	<1	0.7	NC
LOS GATOS CREEK, NORTH	<1	0.7	NC
LOS GATOS CREEK, NORTH	<1	0.7	NC
LOS GATOS CREEK, SOUTH	<1	0.7	NC
LOS GATOS CREEK, SOUTH	<1	0.7	NC
S1	<0.1	0.7	0.1
S1	0.27	0.7	0.4
S2	3.3	0.7	4.7
S2	1.2	0.7	1.7
S3	1.4	0.7	2.0
S3	0.95	0.7	1.4
S4	0.54	0.7	0.8
S4	0.58	0.7	0.8

Total Exceedances	**4**
Percent Exceedance	**50.00%**
Average Exceedance Factor	**1.49**

NC = Not calculable

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR SILVER WITH FRESH WATER SEDIMENT SAMPLES

DRY SEASON DATA

Station ID	Silver Total (mg/kg)	Objective (1.0 mg/kg)	Exceedance Factor
S1	0.7	1	0.7
S1	0.6	1	0.6
S2	0.9	1	0.9
S2	1.5	1	1.5
S3	0.7	1	0.7
S3	1.9	1	1.9
S4	1.45	1	1.5
S4	1.3	1	1.3

Total Exceedances	**4**
Percent Exceedance	**50.00%**
Average Exceedance Factor	**1.13**

WET SEASON DATA

Station ID	Silver Total (mg/kg)	Objective (1.0 mg/kg)	Exceedance Factor
S1	1.00	1	1.0
S1	<0.1	1	0.1
S2	1.30	1	1.3
S2	<0.1	1	0.1
S3	2.00	1	2.0
S3	<0.1	1	0.1
S4	1.15	1	1.2
S4	<0.1	1	0.1

Total Exceedances	**4**
Percent Exceedance	**50.00%**
Average Exceedance Factor	**0.73**

COMPARISON OF RWQCB SCREENING CRITERIA FOR WETLAND CREATION COVER FOR ZINC WITH FRESH WATER SEDIMENT SAMPLES

DRY SEASON DATA

Station ID	Zinc Total (mg/kg)	Objective (160 mg/kg)	Exceedance Factor
ALAMITOS CREEK	100	160	0.6
CALABAZAS CREEK	156	160	1.0
CALABAZAS CREEK	80.4	160	0.5
CALABAZAS CREEK	72.6	160	0.5
COYOTE CREEK, NORTH	100	160	0.6
COYOTE CREEK, NORTH	90	160	0.6
COYOTE CREEK, NORTH	30	160	0.2
COYOTE CREEK, SOUTH	20	160	0.1
COYOTE CREEK, SOUTH	40	160	0.3
COYOTE CREEK, SOUTH	20	160	0.1
COYOTE CREEK, SOUTH	40	160	0.3
COYOTE CREEK, SOUTH	60	160	0.4
COYOTE CREEK, SOUTH	70	160	0.4
GUADALUPE CREEK	230	160	1.4
GUADALUPE CREEK	60	160	0.4
GUADALUPE RIVER, NORTH	120	160	0.8
GUADALUPE RIVER, NORTH	40	160	0.3
GUADALUPE RIVER, NORTH	70	160	0.4
GUADALUPE RIVER, NORTH	50	160	0.3
GUADALUPE RIVER, NORTH	120	160	0.8
GUADALUPE RIVER, NORTH	190	160	1.2
GUADALUPE RIVER, SOUTH	50	160	0.3
GUADALUPE RIVER, SOUTH	90	160	0.6
LOS GATOS CREEK, MIDDLE	50	160	0.3
LOS GATOS CREEK, MIDDLE	60	160	0.4
LOS GATOS CREEK, MIDDLE	50	160	0.3
LOS GATOS CREEK, MIDDLE	30	160	0.2
LOS GATOS CREEK, MIDDLE	80	160	0.5
LOS GATOS CREEK, MIDDLE	120	160	0.8
LOS GATOS CREEK, NORTH	30	160	0.2
LOS GATOS CREEK, NORTH	30	160	0.2
LOS GATOS CREEK, SOUTH	40	160	0.3
LOS GATOS CREEK, SOUTH	120	160	0.8
S1	84	160	0.5
S1	68	160	0.4
S2	100	160	0.6
S2	99	160	0.6
S3	69	160	0.4
S3	335	160	2.1
S4	285	160	1.8
S4	190	160	1.2

Total Exceedances	5
Percent Exceedance	12.20%
Average Exceedance Factor	0.57

WET SEASON DATA

Station ID	Zinc Total (mg/kg)	Objective (160 mg/kg)	Exceedance Factor
ALAMITOS CREEK	60	160	0.4
COYOTE CREEK, NORTH	8	160	0.1
COYOTE CREEK, NORTH	110	160	0.7
COYOTE CREEK, NORTH	60	160	0.4
COYOTE CREEK, NORTH	60	160	0.4
COYOTE CREEK, SOUTH	40	160	0.3
COYOTE CREEK, SOUTH	30	160	0.2
COYOTE CREEK, SOUTH	20	160	0.1
COYOTE CREEK, SOUTH	50	160	0.3
COYOTE CREEK, SOUTH	80	160	0.5
GUADALUPE CREEK	60	160	0.4
GUADALUPE CREEK	30	160	0.2
GUADALUPE CREEK	70	160	0.4
GUADALUPE RIVER, NORTH	810	160	5.1
GUADALUPE RIVER, NORTH	70	160	0.4
GUADALUPE RIVER, NORTH	100	160	0.6
GUADALUPE RIVER, NORTH	70	160	0.4
GUADALUPE RIVER, NORTH	110	160	0.7
GUADALUPE RIVER, SOUTH	30	160	0.2
GUADALUPE RIVER, SOUTH	140	160	0.9
LOS GATOS CREEK, MIDDLE	60	160	0.4
LOS GATOS CREEK, MIDDLE	40	160	0.3
LOS GATOS CREEK, MIDDLE	60	160	0.4
LOS GATOS CREEK, MIDDLE	60	160	0.4
LOS GATOS CREEK, MIDDLE	70	160	0.4
LOS GATOS CREEK, NORTH	100	160	0.6
LOS GATOS CREEK, NORTH	80	160	0.5
LOS GATOS CREEK, NORTH	60	160	0.4
LOS GATOS CREEK, SOUTH	20	160	0.1
LOS GATOS CREEK, SOUTH	50	160	0.3
S1	70	160	0.4
S1	180	160	1.1
S2	150	160	0.9
S2	110	160	0.7
S3	290	160	1.8
S3	150	160	0.9
S4	105	160	0.7
S4	89	160	0.6

Total Exceedances	3
Percent Exceedance	7.89%
Average Exceedance Factor	0.62